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North Carolina
VITAL STATISTICS
1981 Volume 1

Jerry Miller ©

STATE CENTER FOR HEALTH STATISTICS

North Carolina Health Statistics Pocket Guide (Bienniel):
Data for the U.S., South Atlantic Area, N.C. and N.C. counties are presented in tabular and narrative forms with more than 8,000 calculations depicting patterns of various needs indicators as well as births, deaths, abortions, diseases, immunizations, health care resources and other data from state and national reporting systems and surveys. This composite of information, contained in a compact foldout, will serve the needs of many if not most health data users.

North Carolina Vital Statistics, Volume 1: Population, Births, Deaths, Marriages, Divorces (Annual):
For the state and each Department of Human Resources (DHR) region, Health Service Area (HSA), Perinatal Care Region (PCR), county and major incorporated city, one-page tables summarize annual and 5-year data by race and selected variables. Maps, graphs and narrative describe geographical patterns and statewide trends.

North Carolina Vital Statistics, Volume 2: Leading Causes of Mortality (Annual):
For the state, DHR regions, HSA's and counties, cause-specific annual and 5-year data are given in the form of numbers of deaths, unadjusted death rates and age-race-sex-adjusted death rates. For each cause, maps depict 5-year adjusted and unadjusted county rates. Infant mortality and multiple conditions data are also tabulated and mapped.

North Carolina Vital Statistics, Provisional Report (Annual):
For the state, counties and major incorporated cities, data on marriages, divorces, live births, fetal deaths, infant deaths and cause-specific deaths are tabulated at the end of the calendar year to provide provisional vital statistics before annual publications are prepared.

Basic Automated Birth Yearbook, North Carolina Residents (Annual):
Known as the BABY BOOK, this statewide report is comprised of multiple cross-tabulations of various maternal and infant variables such as age, race, birth order, birth weight and number of prenatal visits. Data for DHR regions, HSA's and counties are available on microfiche.

Detailed Mortality Statistics, North Carolina Residents (Annual):
This statewide report provides annual counts of deaths specific for detailed underlying cause of death (4 digits) and age-race-sex group. Data for counties and HSA's are available on microfiche.

North Carolina Reported Abortions (Annual):
For the state, HSA's and counties, annual estimates of pregnancy rates, abortion rates and abortion fractions by age and race are followed by one-page tables displaying estimated counts and percentages of abortions by race, marital status and other characteristics of the abortee and abortion procedure. Maps, graphs and narrative describe geographical patterns and statewide trends.

North Carolina Communicable Disease Morbidity Statistics (Annual):
For the state, counties and 4 military bases, one-page tables display disease-specific counts for the current year and four prior years; current counts are race-specific. Tables, graphs and narrative describe statewide trends and age-race-sex patterns in reported cases and rates.

SCHS Studies (Intermittent):
Studies on health topics of current interest are presented in newsletter form.

SCHS Primer (Intermittent):
Short tutorials on statistical methods are presented in newsletter form.

North Carolina Chartbook on Population and Health (Annual):
This book provides graphs and charts depicting the characteristics of North Carolina's population, health care resources, health care and health status.

Hospital Summary Report, N.C. Health Facilities Data Book (Annual):
Facility-level data are compiled from the annual license renewal application, including beds by type, services with frequency of use, hospital personnel, and utilization statistics by age by service; over 500 pages; cost $25.00.

Hospital Patient Origin Report, N.C. Health Facilities Data Book (Annual):
Facility- and county-level data are compiled from the annual license renewal application, including county patient origin for hospitals and hospital destination for county residents, by age and service; about 450 pages; cost: $25.00.

Nursing Home Summary Report, N.C. Health Facilities Data Book (Annual):
Facility-level data are compiled from the annual license renewal application, including bed complement, utilization statistics, facility personnel, patient census by age and sex, yearly expenditures, and basic monthly charges; about 225 pages; cost $12.50.

NORTH CAROLINA VITAL STATISTICS
1981

VOLUME 1: BIRTHS
DEATHS
POPULATION
MARRIAGES
DIVORCES

Department of Human Resources
Division of Health Services
Office of Management Services
Raleigh, North Carolina

SCHS
State Center For Health Statistics
(919) 733-4728

STATE OF NORTH CAROLINA
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Ronald H. Levine, M.D., M.P.H., State Health Director

OFFICE OF MANAGEMENT SERVICES
Margaret Woodcock, M.A., M.P.A., Assistant Director

STATE CENTER FOR HEALTH STATISTICS
Charles J. Rothwell, M.B.A., M.S., Director

March 1983

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COVER: A pen and ink drawing by Raleigh artist, Jerry Miller, of the Cape Hatteras Lighthouse on the Outer Banks. Public contributions to the Save the Cape Hatteras Lighthouse Committee have resulted in the use of artificial seagrass to drive the ocean 200 feet back from the lighthouse base. In 1980, erosion had brought waves within 70 feet.

I. INTRODUCTION

This volume is the sixty-sixth annual vital statistics report of the State of North Carolina. It is intended to serve as a basic resource to those individuals, institutions and agencies delivering and/or planning health services for the citizens of North Carolina.

The tables of this report show annual frequencies, annual rates and five-year rates for the state, four Department of Human Resources regions, six Health Service Areas, six Perinatal Care Regions and the one hundred counties of North Carolina. In addition, annual frequencies and selected rates are shown for 43 major incorporated cities. Five new cities - Boone, Cary, Garner, Havelock and Laurinburg - were added by virture of these incorporated places surpassing 10,000 population as enumerated in the 1980 census.

Trends in state data are described in Section II while Section III contains maps depicting county data. Geographical patterns are discussed in terms of the HSA's. Sections IV-VII contain description and discussion of the terms and procedures underlying all tabular and graphical data presented. Users should note a change in the case of birth attendant, beginning in 1980. Effective July 1, 1979, amendment of General Statute 130-50 allows a certified nurse midwife (CNM) to attend births occurring in a hospital or other medical facility. Further, a CNM may obtain a permit to deliver outside a medical facility. Thus, effective January 1, 1980, certified nurse midwives and permitted midwives are coded separately.

As more detailed information is available on an annual basis than can be published here, other publications released through this office are described on the back of the front cover. Persons desiring copies of these publications may contact the State Center for Health Statistics at (919) 733-4728, or address correspondence to:

State Center for Health Statistics
Division of Health Services
P.O. Box 2091
Raleigh, North Carolina 27602

II. TRENDS IN VITAL STATISTICS

North Carolina's population and registered vital events reflect the following recent trends:

- THE STATE'S POPULATION IS BOTH INCREASING FASTER AND AGING FASTER THAN THAT OF THE U.S. WHILE THE NONWHITE AND NONMETROPOLITION SECTORS EXPERIENCE RENEWED GROWTH.
- N.C.'S BIRTH RATE REMAINS BELOW THE NATION'S BUT HIGH LEVELS OF PREMATURITY CONTINUE.
- INFANT MORTALITY CONTINUES DOWNWARD; RACE DIFFERENTIALS REMAIN WIDE.
- MALES OF BOTH RACES EXPERIENCED REDUCED MORTALITY IN 1981, BUT SEX DIFFERENTIALS REMAIN WIDE.
- THE DIVORCE RATE REACHED A RECORD HIGH IN 1981, AND THE MARRIAGE RATE ALSO ROSE.

Expanded analyses of these trends follow. These analyses are based on annual vital event registrations and population bases applicable to July 1 of the event year. The population bases and inherent problems are described in Section VI where the reader may also glean some appreciation for biases in pre-1980 estimates arising from population undercounts.

In the analyses that follow, the several statistics are discussed in the order of their appearance in the tables of this report. Counties and regions may review their respective vital statistics trends in order to detect departures from the state, area and national trends depicted graphically. For definitions and formulas, see Section VII. The reader is also cautioned here that trend data and corresponding graphs have not been corrected for errors in pre-1980 population bases.

For the graphical presentations, data for the United States (U.S.) and the South Atlantic Area (S.A.) are from the National Center for Health Statistics. The South Atlantic Area includes eight states* and the District of Columbia. For the U.S. and S.A., 1980 and 1981 data are provisional except that 1980 natality data are final; data on 1981 prematurity and births out of wedlock and on 1980 and 1981 fetal deaths are not yet available. Also, users should be aware that nine states, including Maryland in the South Atlantic Area, do not report the legitimacy status of live births.

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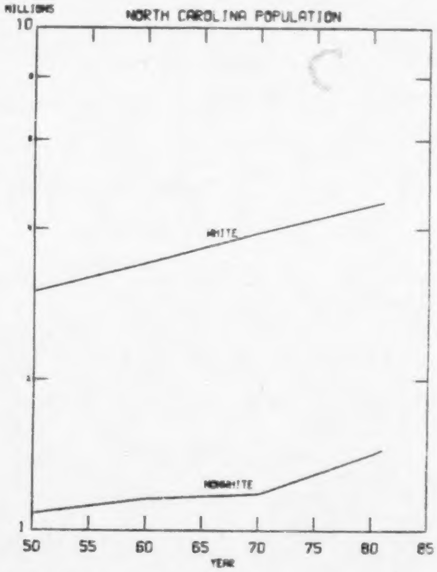
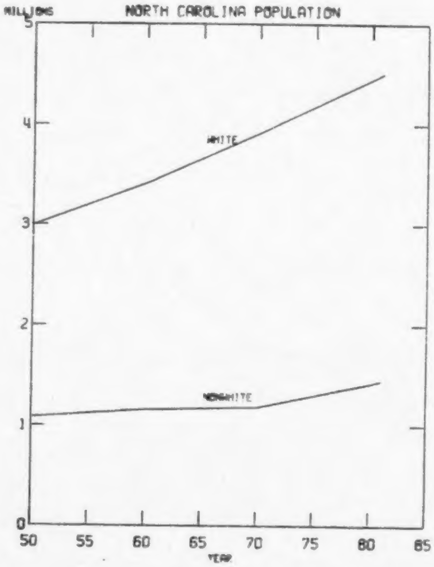
*Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida.

In the following section describing North Carolina's changing population, white and nonwhite population counts are plotted on both the logarithmic and arithmetic scales. Thereafter, only the logarithmic scale is used in order that the reader may compare relative (percentage) changes as opposed to numerical or absolute changes in the selected statistics.

Population

Between 1950 and 1970, the North Carolina white population increased about 31 percent while the nonwhite population rose about 9 percent (1). Between 1970 and 1980, however, the percentage increase would appear greater for nonwhites - 20.6 percent compared to 14.0 for whites (1,2) - although nonwhite undercounts in 1970 account for much of the difference (see Section VI). Graphically, the relative similarity between the white and nonwhite percentage increases since 1970 is apparent only when one uses the logarithmic scale (below left). This is because equal distances on the logarithmic scale represent equal percentage changes whereas equal distances on the arithmetic scale represent equal numerical changes.





Both whites and nonwhites experienced net out-migration during the nineteen-fifties, while whites netted an in-migration of 2.9% and nonwhites an out-migration of 14.8% between 1960 and 1970 (1). Between 1970 and 1980, both whites and nonwhites experienced apparent in-migration of about 8% each.

But again, those percentages, expecially for nonwhites, involve undercounts in 1970.

In-migration of whites and out-migration of nonwhites lowered the percentage of nonwhites in the population from 25.4 in 1960 to 23.2 in 1970 (1). The percentage was about 24.2 in 1980 (2). As to natural increase in the population (the excess of births over deaths), the nonwhite rate is more than twice the white rate - 10.1 compared to 4.4 per 1,000 population in 1981.

From the health community's point of view, it is highly notable that N.C.'s population is both increasing faster and aging faster than that of the U.S. as a whole. While median age remains slightly below the nation's, the state's increase in the percentage of residents 65 and older is expected to double the nationwide increase during the interval 1976 to 1985. Other health-related population factors documented by the 1980 census include recent renewed growth in the state's nonmetropolitan population and rapid increases in the numbers of single parents, working women, children in day care and residents in nursing homes. Altogether, the combination of the above factors plus a bleak employment picture portend an unprecedented demand for health services during the 1980's. (3)

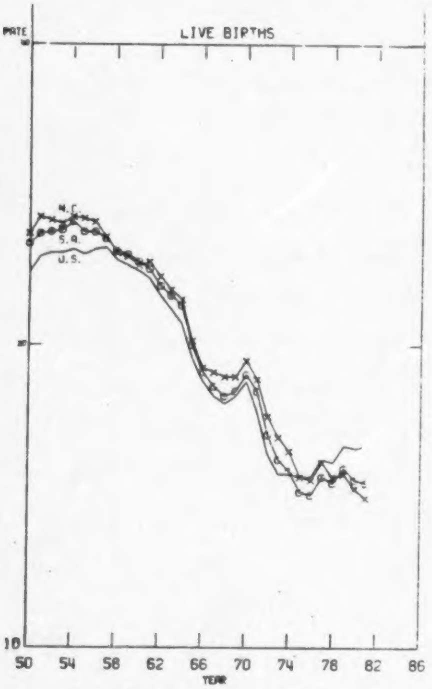
Live Births

The North Carolina birth rate was 14.1 resident births per 1,000 population in 1981. This compares with rates of 14.4 in 1980, 14.9 in 1979, 14.8 in 1978 and 15.3 in 1977. Again, pre-1980 rates are artifically high due to undercounts in the 1970 population.

Nationwide, a provisional birth rate of 15.9 in 1981 continues an upward trend begun in 1977. In North Carolina the birth rate also rose in 1977 when all states except Alaska experienced an increase. According to the National Center for Health Statistics, this was due in large measure to previously postponed births as opposed to earlier childbearing among younger women or larger families among older women. (5,6)

As shown in the next graph, N.C.'s birth rate is recently below the nation's and this is true for both races. Provisionally, a total of 40 other states had higher rates in 1981. (5,6)

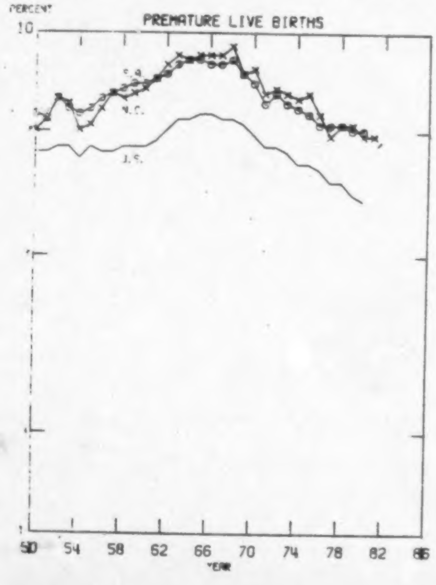
As noted in the Introduction, North Carolina now allows certified nurse midwives to perform deliveries. During 1981, they delivered 1.9 percent of all live births - 1.6 percent of white births and 2.6 percent of nonwhite births.

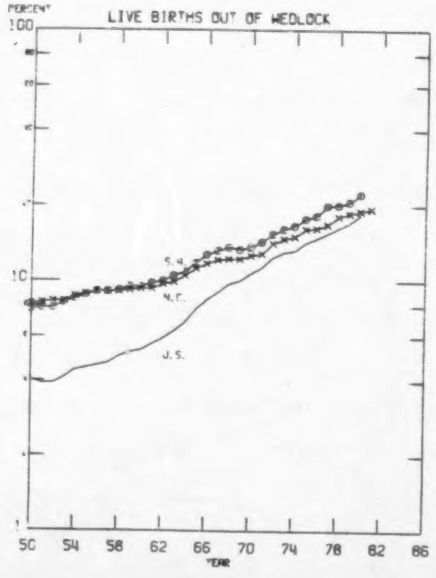


The percent of North Carolina live births classified as premature - 5 pounds, 8 ounces or less - was 7.9 in 1977, 8.1 in 1978 and 1979, and 7.9 in 1980 and 1981. While these figures represent an appreciable decline since 1968, the North Carolina premature rate was above those of 42 other states in 1980. In N.C. as well as nationwide, the nonwhite premature rate is about twice the white premature rate. (5)

In both the state and the nation, the number and percentage of live births occurring out of wedlock rose steadily during the last decade. In North Carolina, the increase appears entirely due to growth in the number of unmarried women of childbearing age; the rate of childbearing by unmarried women actually dropped slightly during the decade, from 38.6 to 35.1 live births per 1,000 single women ages 15-44. Comparable race-specific rates are not yet available, but in 1981, the percentages of white and nonwhite births that occurred out of wedlock were 6.5 and 46.4 respectively. Corresponding U.S. percentages were 11.0 and 48.4 respectively in 1980. (5)

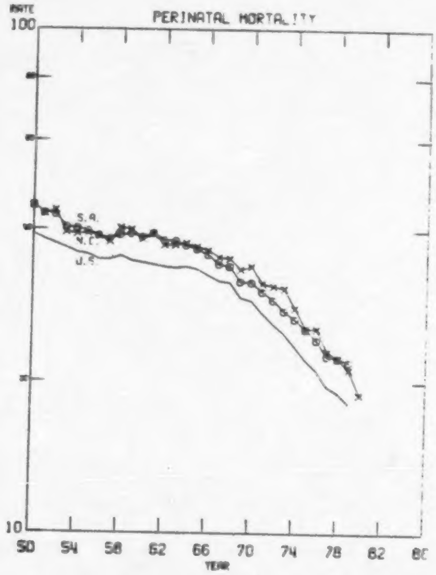
Notable changes in North Carolina births also include reduced percentages of mothers of young and old age, low education, high parity and previous loss of a liveborn infant. Still, in 1981, 43 percent of white births and 72 percent of nonwhite births involved at least one of the eight maternal characteristics associated with high infant mortality. (3)

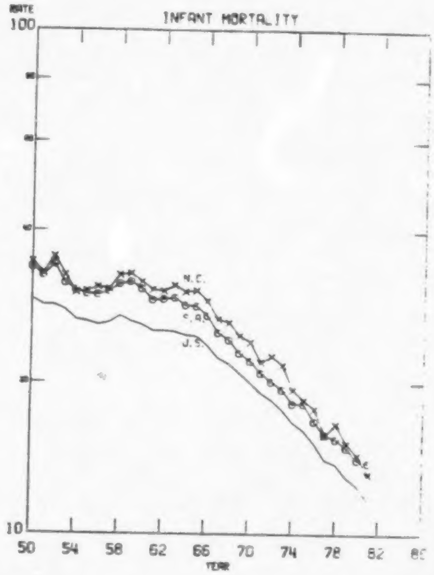




Perinatal and Infant Mortality*

Continuing a decline begun in 1971 and interrupted only in 1976, North Carolina's 1981 perinatal mortality rate was 18.9 fetal and neonatal deaths per 1,000 deliveries. The state's infant rate of 13.2 deaths (under 1 year) per 1,000 live births compares to 14.4 in 1980, 15.2 in 1979, 16.6 in 1978 and 15.8 in 1977. Both the perinatal and infant rates in N.C. have remained higher than rates for the U.S. and the South Atlantic Area; provisionally, the infant rate was exceeded by those of only 4 states in 1980 and 7 states in 1981 (6). To what extent this reflects differentials in registration completeness is unknown.





From the next two graphs, it is clear that a downturn in nonwhite postneonatal mortality represents a major recent improvement in North Carolina's infant mortality. While both white and nonwhite fetal and neonatal rates have dropped substantially, the nonwhite postneonatal rate decreased by 50 percent between 1970 and 1981 while the white rate dropped only 10 percent during the period. Also worthy of note are findings that reductions in the fetal and neonatal rates of mature-weight infants were greater among nonwhites (3). Still, nonwhite fetal, neonatal and postneonatal rates all remain well above corresponding rates for whites as the next table shows.

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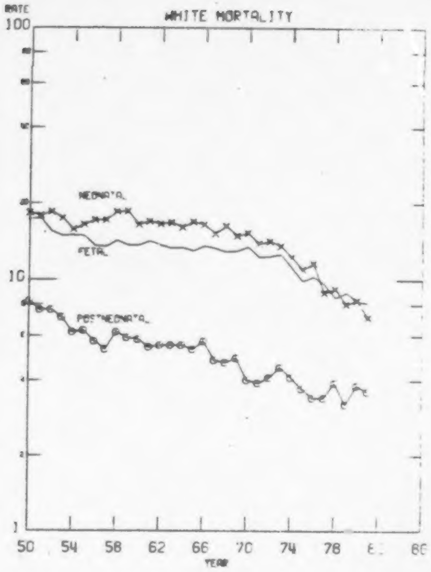
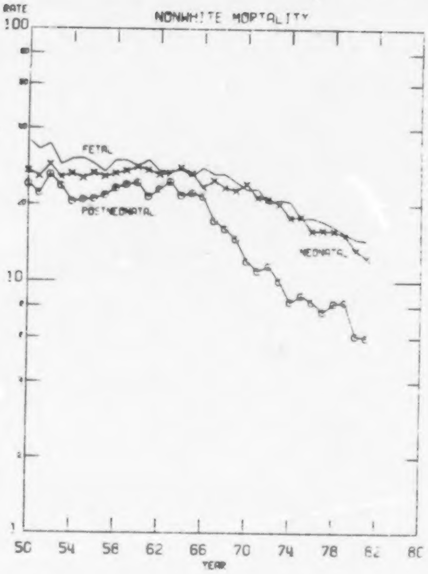
*Users should be aware that N.C. fetal and perinatal trends involve a change in law whereby fetal deaths of 20 or more weeks of gestation may be reportable as therapeutic abortions, beginning in 1971 (see discussion of fetal death registration, page 1-24. Also, for the U.S. and S.A., 1980 and 1981 perinatal data (fetal deaths) are not available.

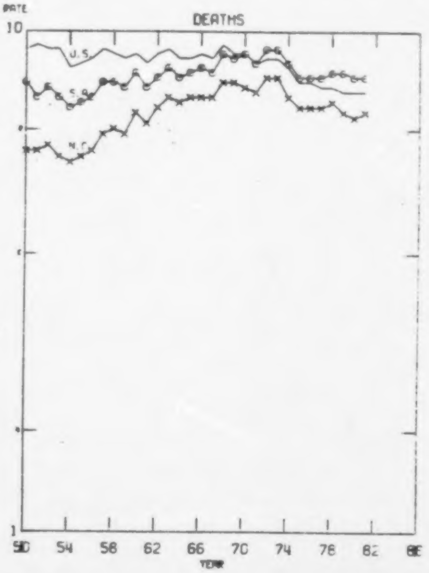




North Carolina	Whites			Nonwhites		
	1970	1980	1981	1970	1980	1981
Fetal Rate	13.5	8.2	8.1	22.9	14.7	14.5
Neonatal Rate	15.3	8.3	7.1	24.1	13.3	12.4
Postneonatal Rate	4.0	3.8	3.6	12.0	6.1	6.0

Deaths

The following graph reveals a relatively favorable death rate in North Carolina. However, that circumstance is due to the state's more favorable age structure, i.e., while we are aging faster, we remain a younger population than the nation as a whole.



The state's 1981 death rate was 8.3 resident deaths per 1,000 population, up slightly from 8.2 in 1980 but well below peak rates of 9.0 experienced in 1972 and 1973. The 1981 male rate of 9.5 compares to a female rate of 7.1. White and nonwhite rates in 1981 were 8.2 and 8.4 respectively. Rates for males of both races represent improvements over 1980 levels.

The state's median age at death was 70.4 years in 1981, up from 66.4 in 1970 and 28.1 in 1914 when deaths were first centrally recorded. For all ages except 15-24, the 1981 nonwhite death rate was higher than the white rate. A nonwhite child 0-4 years of age was 81 percent more likely to die than a white child of the same age. A nonwhite adult 25-34, 35-44 or 45-54 years of age was at least twice as likely to die as a white adult in the same age group. White and nonwhite persons 5-14 and 15-24 experienced similar death rates.

When North Carolina age-specific death rates for 1981 are compared to provisional rates for the U.S. (6), N.C. excesses of 10 to 30 percent are found in the following groups:

White males ages 55-64

White females ages 5-14

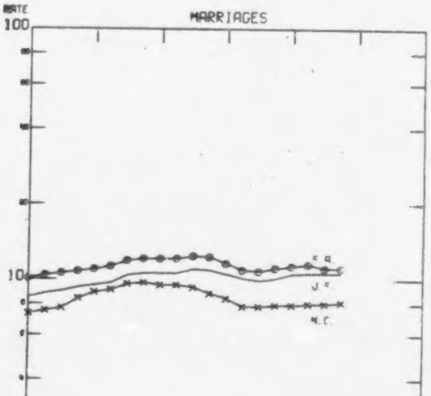
Nonwhite males in all 10-year age groups 35-44 through 75-84

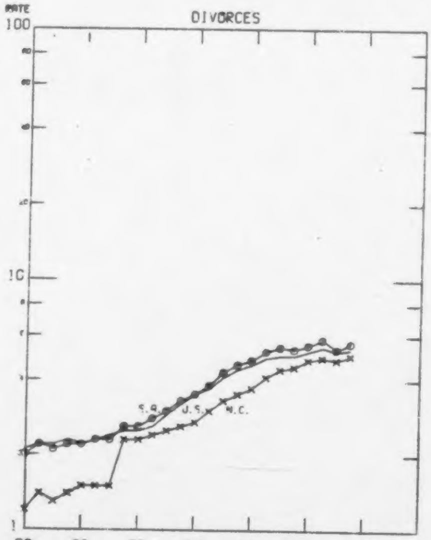
Nonwhite females ages 0-4 and 45-54.

Marriages and Divorces

For the first time since 1969, the North Carolina marriage rate rose slightly in 1977, to 7.9 marriages per 1,000 population. Remaining at 7.9 in 1978, the rate rose to 8.0 in 1979 and to 8.1 in 1981. The net decrease since 1970 has been about 15 percent.

During 1980, the state's divorce rate dropped slightly to 4.8 divorces per 1,000 population to break a 13-year course of increase. However, the rate rose in 1981 to 5.0, the highest ever recorded. The result is that for each 100 marriages in North Carolina, there were 62 divorces in 1981 versus 28 in 1970 and 20 in 1962 when marriages were first centrally recorded.





Compared to the U.S. and the South Atlantic Area, North Carolina's marriage and divorce rates are both lower (6). It should be noted, however, that marriage and divorce counts are by place of occurrence rather than residence, and since North Carolina's marriage and divorce laws are more restrictive than in some other states, North Carolinians may tend to marry and divorce out of state far more often than nonresidents marry and divorce here. Hence, compared to U.S. and regional data, the N.C. marriage and divorce rates may be artifically low.

More About the Logarithmic Scale

Persons desiring fuller explanation of the logarithmic scale should contact the State Center for Health Statistics. We will be glad to assist in reading and preparing graphs. Again, equal distances on the logarithmic scale represent equal percentage changes whereas equal distances on the arithmetic scale represent equal numerical changes. The two types of graphs are compared on page 1-4.

III. GEOGRAPHICAL PATTERNS IN VITAL STATISTICS

This section contains 10 computer-produced maps which depict population and selected vital statistics for the state's 100 counties. Each map displays six levels of population or a particular vital statistics rate. For these maps, a clustering routine from the Statistical Analysis System (7) was used to group into each of six clusters counties that were "most like each other" with respect to the statistic being examined. This procedure may result in very large or very small groups depending upon how counties differ from one another.

Users of the vital statistics maps should note that the interval values indicated by the map legends are not necessarily continuous but reflect the actual range of values in each interval. Data and population bases are for the five-year period 1977-1981.

The ten maps display the county statistics listed below. Definitions and formulas are found in Section VII and maps displaying county names are printed on the reverse sides of region and county divider sheets.

Figure	
1	Estimated Population, July 1981
2	Live Births per 1,000 Population
3	Premature Live Births per 100 Live Births
4	Out-of-Wedlock Live Births per 100 Live Births
5	Fetal Deaths per 1,000 Deliveries
6	Neonatal Deaths per 1,000 Live Births
7	Postneonatal Deaths per 1,000 Neonatal Survivors
8	Deaths per 1,000 Population
9	Marriages per 1,000 Population
10	Divorces per 1,000 Population

Comparisons Among Health Service Areas

For each of the mapped variables, the table on the following page shows the range of values among the six HSAs and each HSA's rank. A low rank indicates a high value, e.g., a rank of 1 means the HSA had the highest of the six HSA values for a particular variable. Ties are assigned the average of the tied ranks. Values for the individual HSA's are found on pages 4-1 through 4-6.

In terms of population size, the Piedmont HSA is the largest and the Capital is the smallest, these accounting for 19% and 14% respectively of N.C.'s total population. Additional information gleaned from the HSA ranks are highlighted below.

- Ranking third in population, the Western HSA has the lowest percentage of premature and out-of-wedlock births as well as the lowest neonatal death rate, but the overall death rate is high.
- First in population, the Piedmont HSA has above average marriage and divorce rates.
- Relative to other mapped variables, neonatal mortality and divorce appear major concerns in the Southern Piedmont.
- A high rate of prematurity is found in the smallest HSA, the Capital.
- In the Cardinal HSA, a high birth rate accompanies above-average levels of illegitimacy and fetal and postneonatal mortality.
- Second-largest in population size, the Eastern HSA has high rates for all mapped variables except the divorce rate.

Range of Values Among HSA's and HSA Ranks
for Variables Mapped in Figures 1-10

Variable	Range of HSA Values	Health Service Area Rank					
		Western	Piedmont	So. Piedmont	Capital	Cardinal	Eastern
Population 7/1/81	830,509 - 1,126,313	3	1	4	6	5	2
Live Birth Rate	12.9 - 17.4	5	6	3	4	1	2
Percent Premature	7.4 - 8.5	6	4	5	1	3	2
Percent Out of Wedlock	11.9 - 21.3	6	5	4	3	2	1
Fetal Death Rate	9.6 - 11.5	4.5*	6	3	4.5*	2	1
Neonatal Death Rate	8.8 - 11.3	6	5	2	3	4	1
Postneonatal Death Rate	3.9 - 5.5	3	5	6	4	1	2
Death Rate	8.1 - 8.8	1	3	5*	5*	5*	2
Marriage Rate	5.5 - 10.5	3	2	5	4	6	1
Divorce Rate	4.0 - 5.3	4	2	1	3	5	6

* Average of the tied ranks.

1981 POPULATION

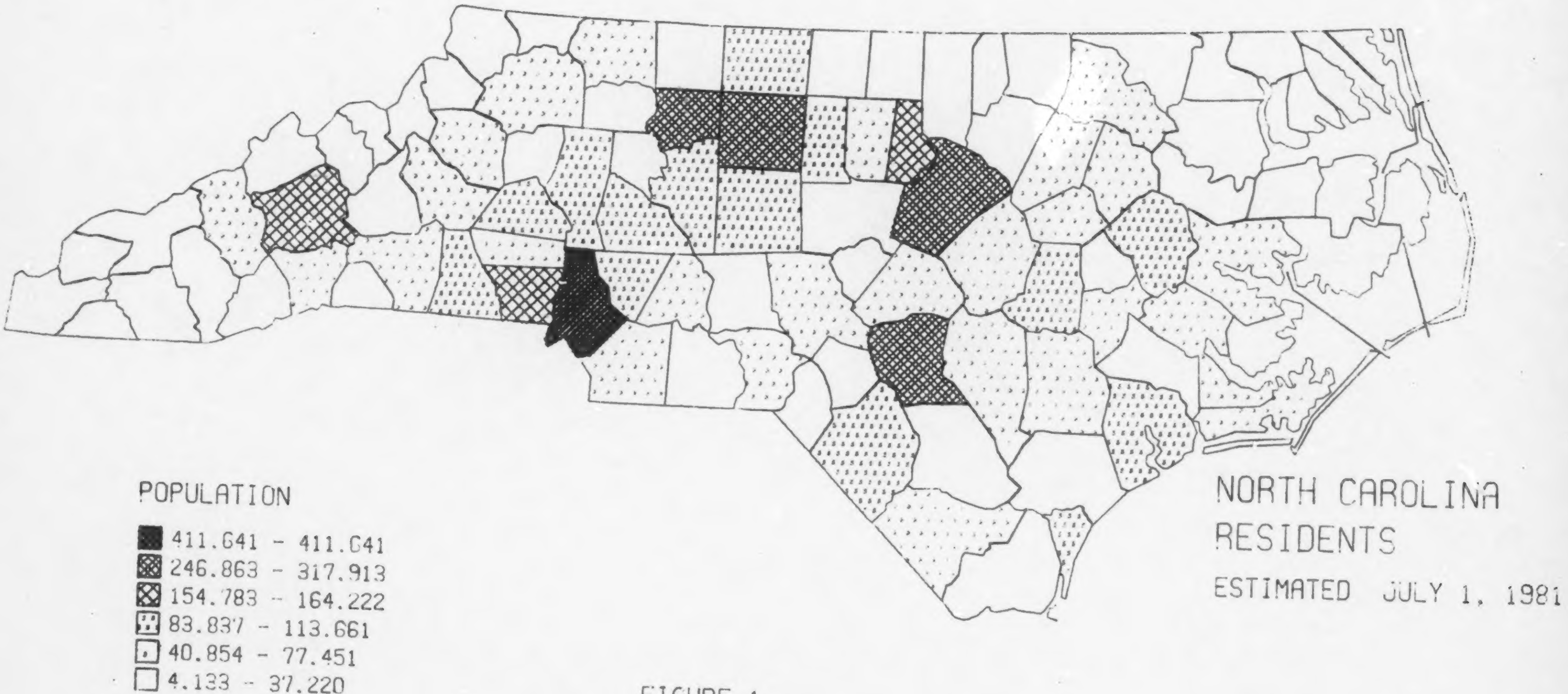
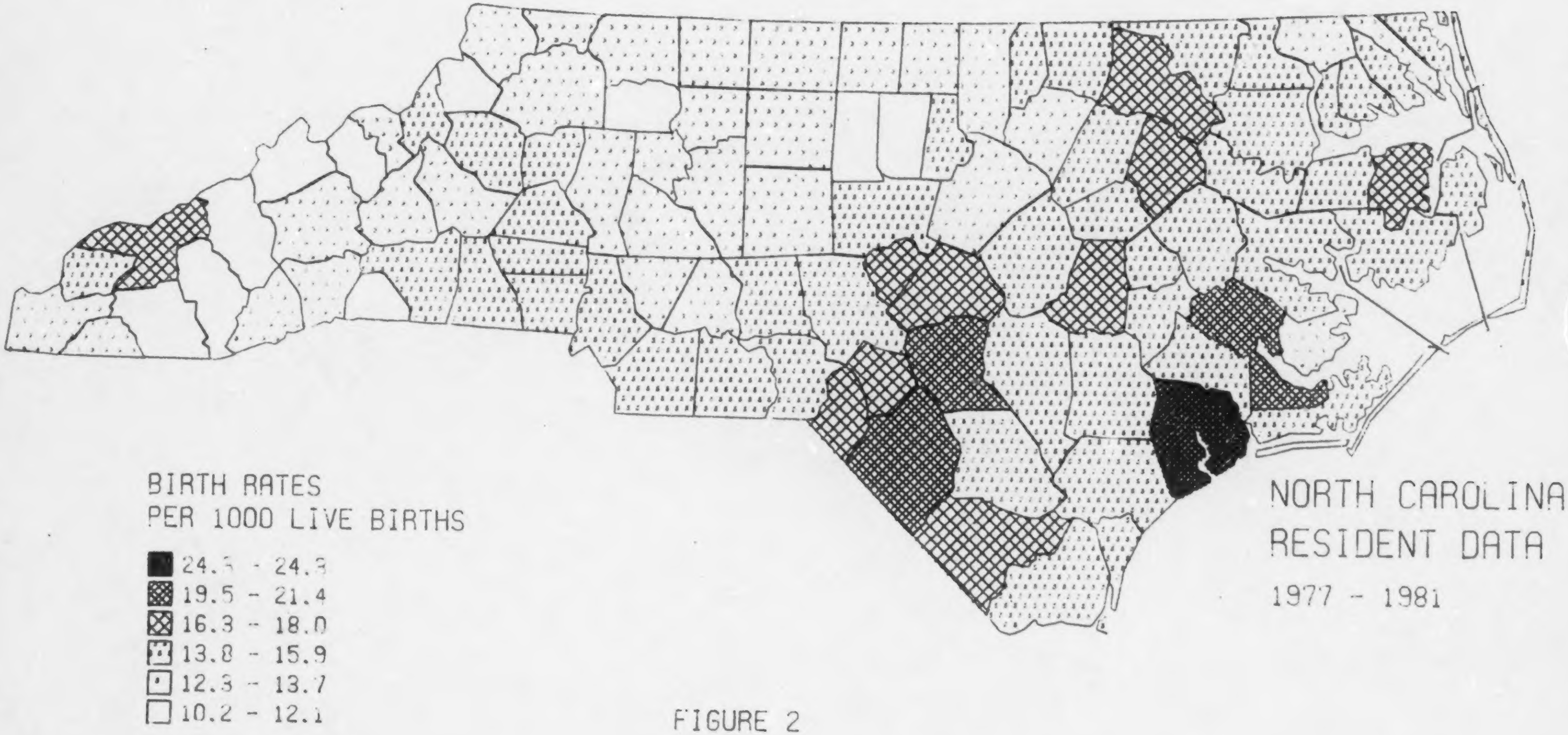

POPULATION
411.641 - 411.641
246.863 - 317.913
154.783 - 164.222
83.837 - 113.661
40.854 - 77.451
4.133 - 37.220
NORTH CAROLINA
RESIDENTS
ESTIMATED JULY 1, 1981

FIGURE 1

BIRTH RATES


BIRTH RATES
PER 1000 LIVE BIRTHS
■ 24.5 - 24.8
▩ 19.5 - 21.4
▨ 16.3 - 18.0
⁙ 13.8 - 15.9
⊡ 12.3 - 13.7
☐ 10.2 - 12.1

NORTH CAROLINA
RESIDENT DATA
1977 - 1981

FIGURE 2

PREMATURE BIRTH RATES

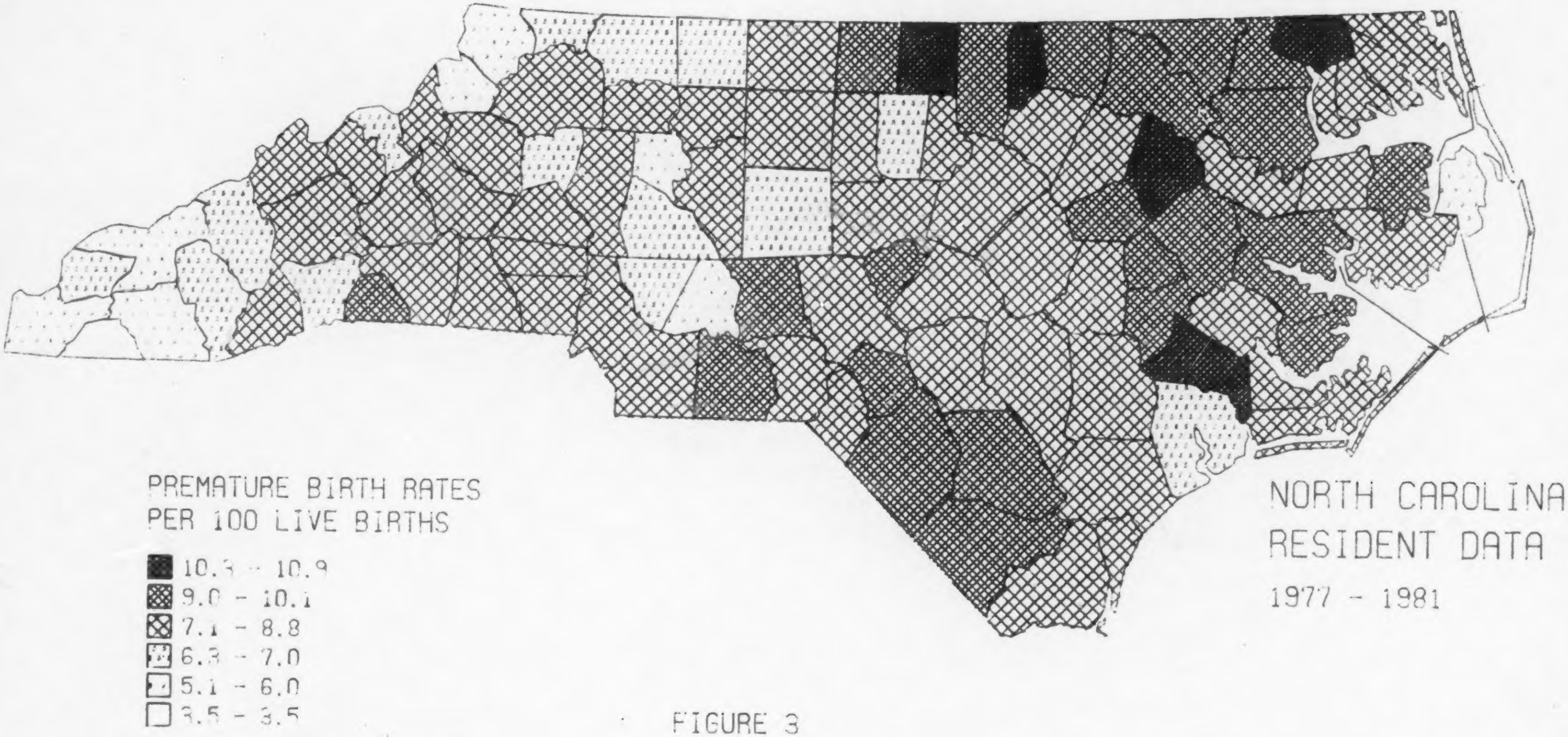
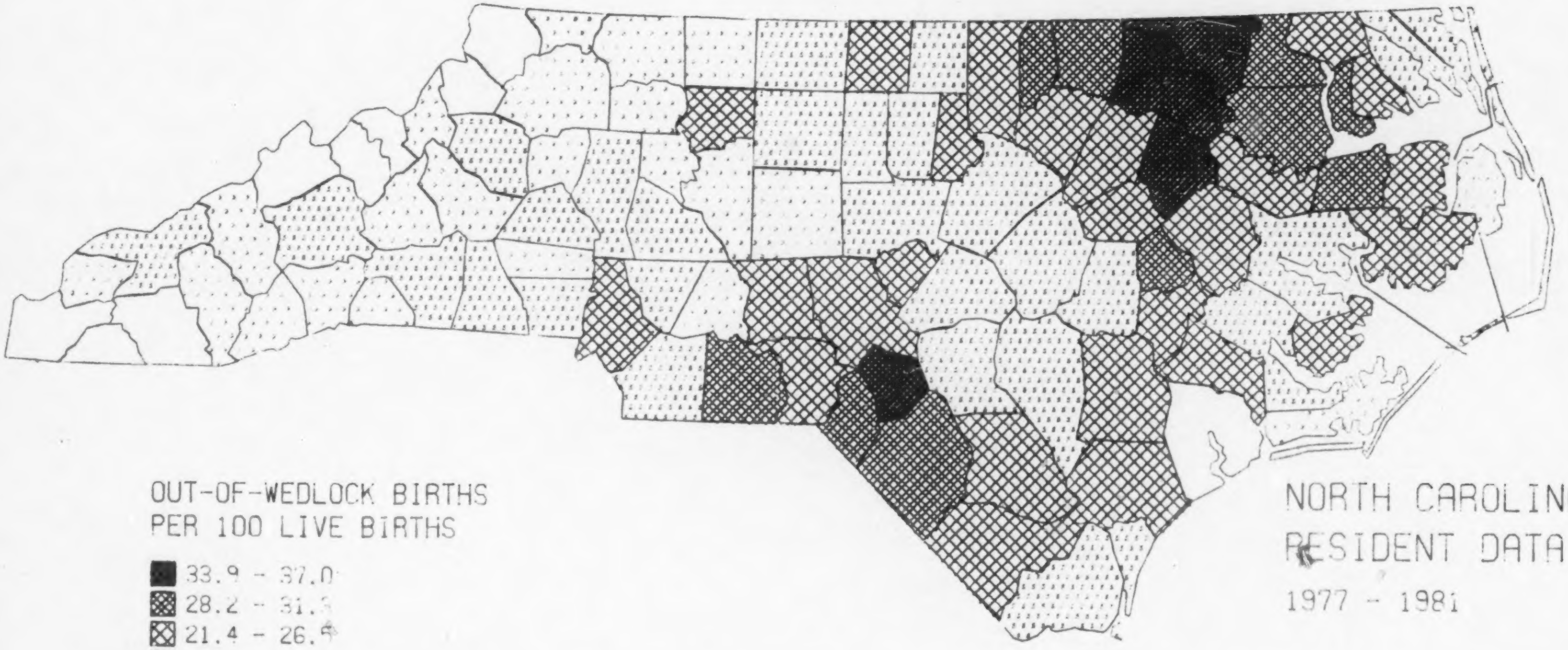

PREMATURE BIRTH RATES
PER 100 LIVE BIRTHS
■ 10.3 - 10.9
▩ 9.0 - 10.1
▨ 7.1 - 8.8
▦ 6.3 - 7.0
▫ 5.1 - 6.0
☐ 3.5 - 3.5
NORTH CAROLINA
RESIDENT DATA
1977 - 1981

FIGURE 3

OUT-OF-WEDLOCK BIRTH RATES



NORTH CAROLINA
RESIDENT DATA
1977 - 1981

OUT-OF-WEDLOCK BIRTHS
PER 100 LIVE BIRTHS

■ 33.9 - 37.0
▩ 28.2 - 31.6
▨ 21.4 - 26.9
⁘ 13.4 - 20.7
⊡ 7.6 - 12.8
☐ 3.5 - 7.3

FIGURE 4

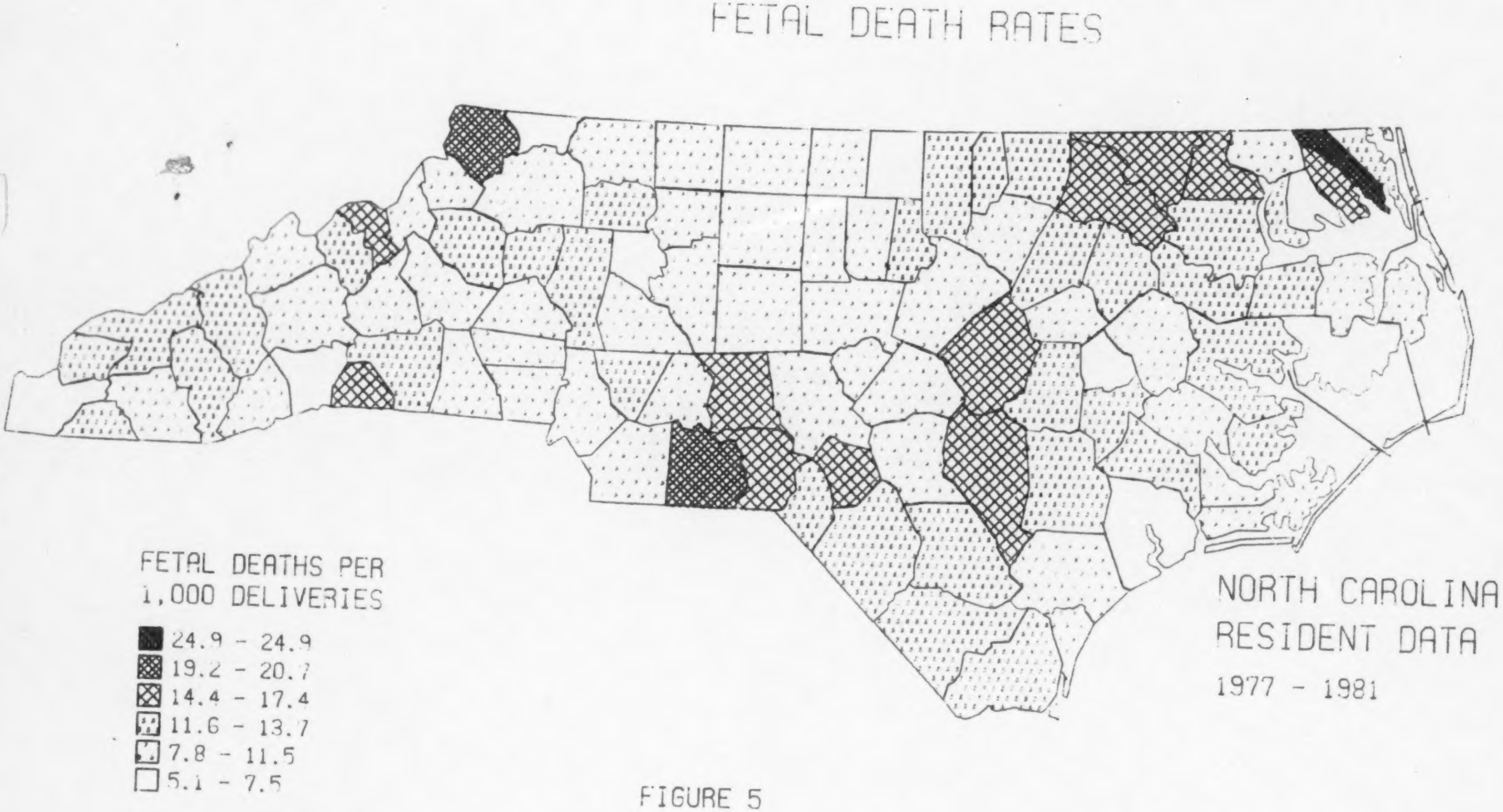
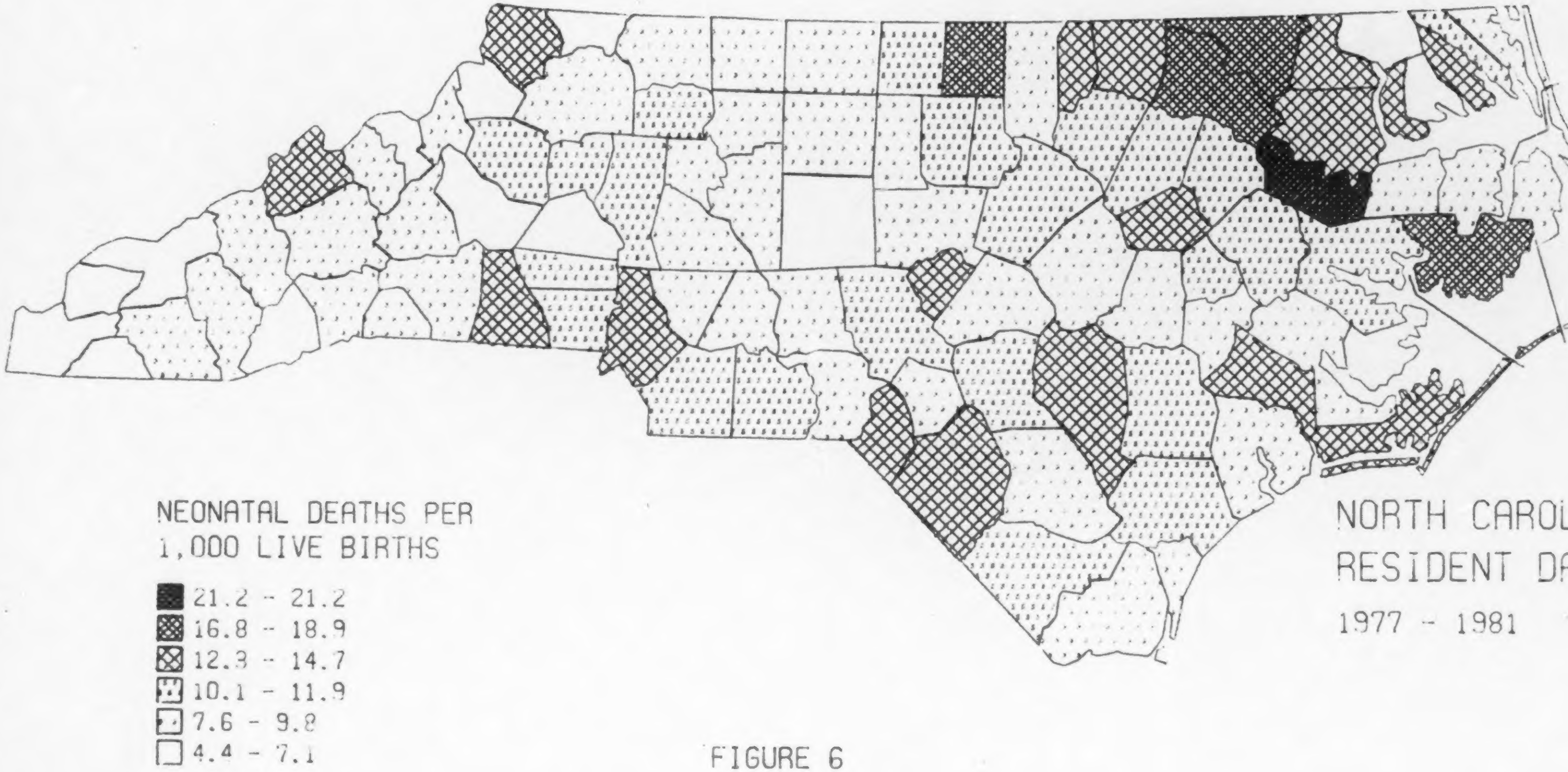

FETAL DEATH RATES
FETAL DEATHS PER
1,000 DELIVERIES
■ 24.9 - 24.9
▩ 19.2 - 20.7
▨ 14.4 - 17.4
▦ 11.6 - 13.7
⬚ 7.8 - 11.5
☐ 5.1 - 7.5
NORTH CAROLINA
RESIDENT DATA
1977 - 1981

FIGURE 5

NEONATAL DEATHS


NEONATAL DEATHS PER
1,000 LIVE BIRTHS
21.2 - 21.2
16.8 - 18.9
12.3 - 14.7
10.1 - 11.9
7.6 - 9.8
4.4 - 7.1

NORTH CAROLINA
RESIDENT DATA
1977 - 1981

FIGURE 6

POSTNEONATAL DEATHS

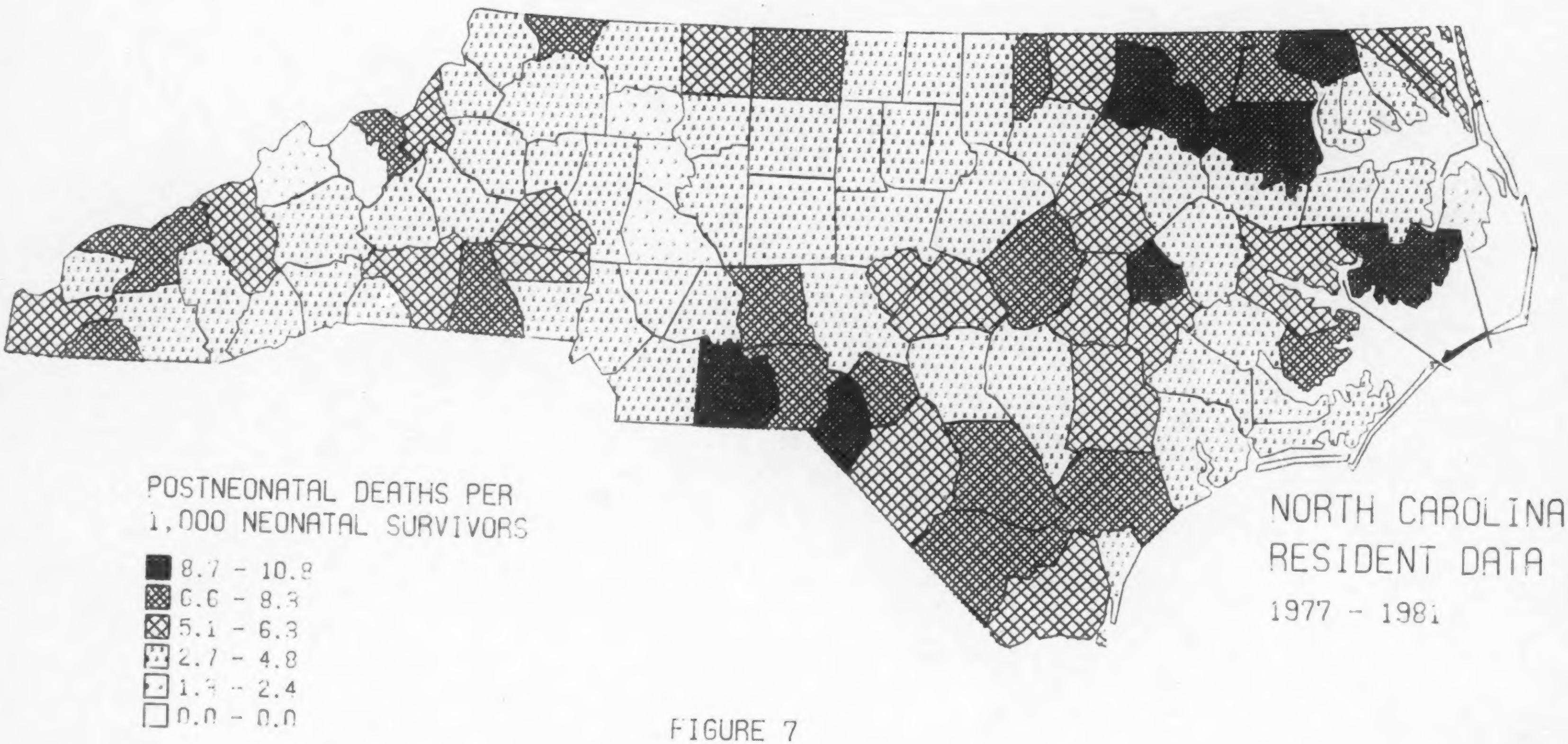

POSTNEONATAL DEATHS PER
1,000 NEONATAL SURVIVORS
■ 8.7 - 10.8
▩ 6.6 - 8.3
▨ 5.1 - 6.3
▦ 2.7 - 4.8
⊡ 1.4 - 2.4
□ 0.0 - 0.0
NORTH CAROLINA
RESIDENT DATA
1977 - 1981

FIGURE 7

DEATH RATES

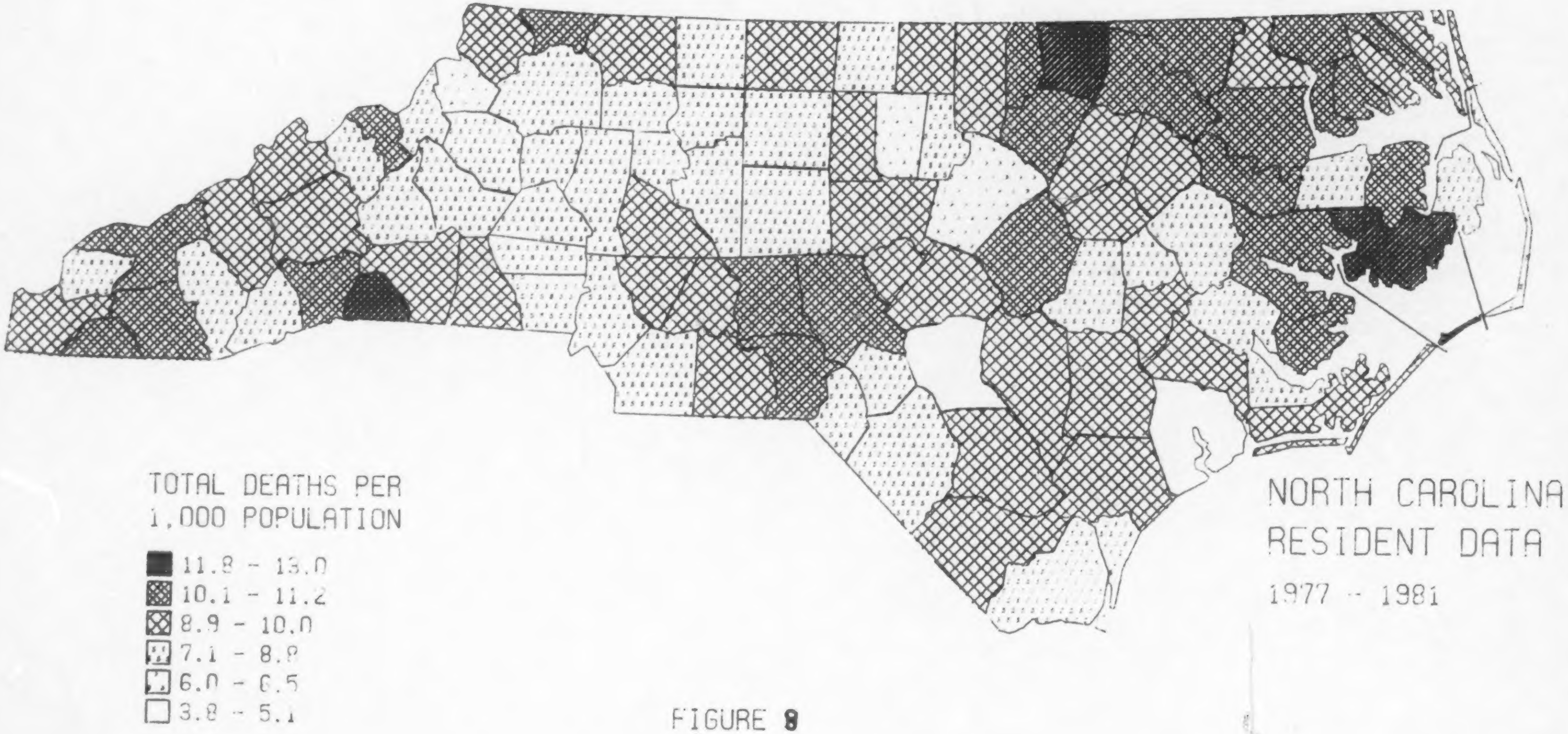

TOTAL DEATHS PER
1,000 POPULATION
■ 11.8 - 13.0
▩ 10.1 - 11.2
▨ 8.9 - 10.0
▦ 7.1 - 8.8
▤ 6.0 - 6.5
☐ 3.8 - 5.1
NORTH CAROLINA
RESIDENT DATA
1977 - 1981

FIGURE 8

MARRIAGE RATES

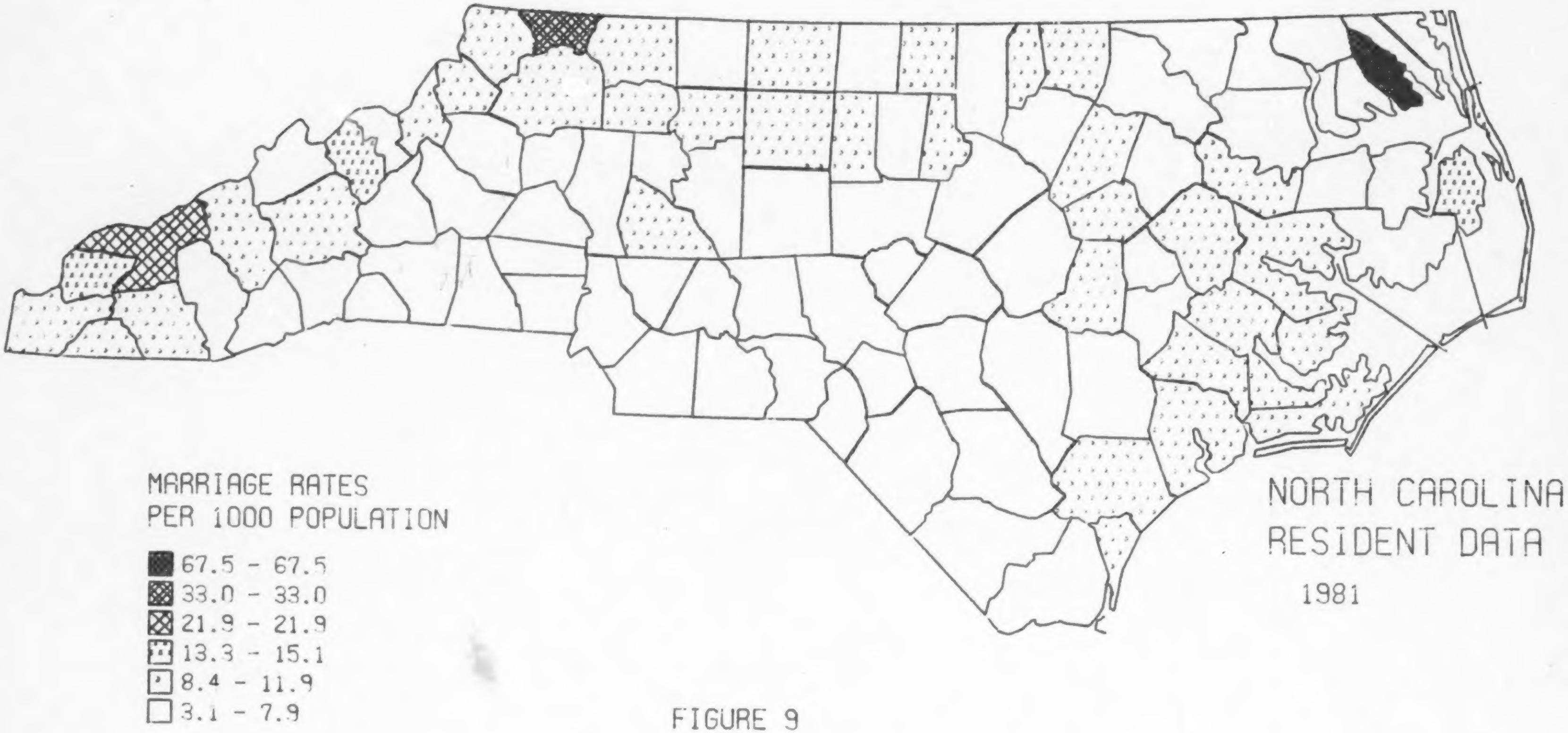

MARRIAGE RATES
PER 1000 POPULATION
■ 67.5 - 67.5
▩ 33.0 - 33.0
☒ 21.9 - 21.9
▦ 13.3 - 15.1
▫ 8.4 - 11.9
☐ 3.1 - 7.9
NORTH CAROLINA
RESIDENT DATA
1981

FIGURE 9

DIVORCE RATES

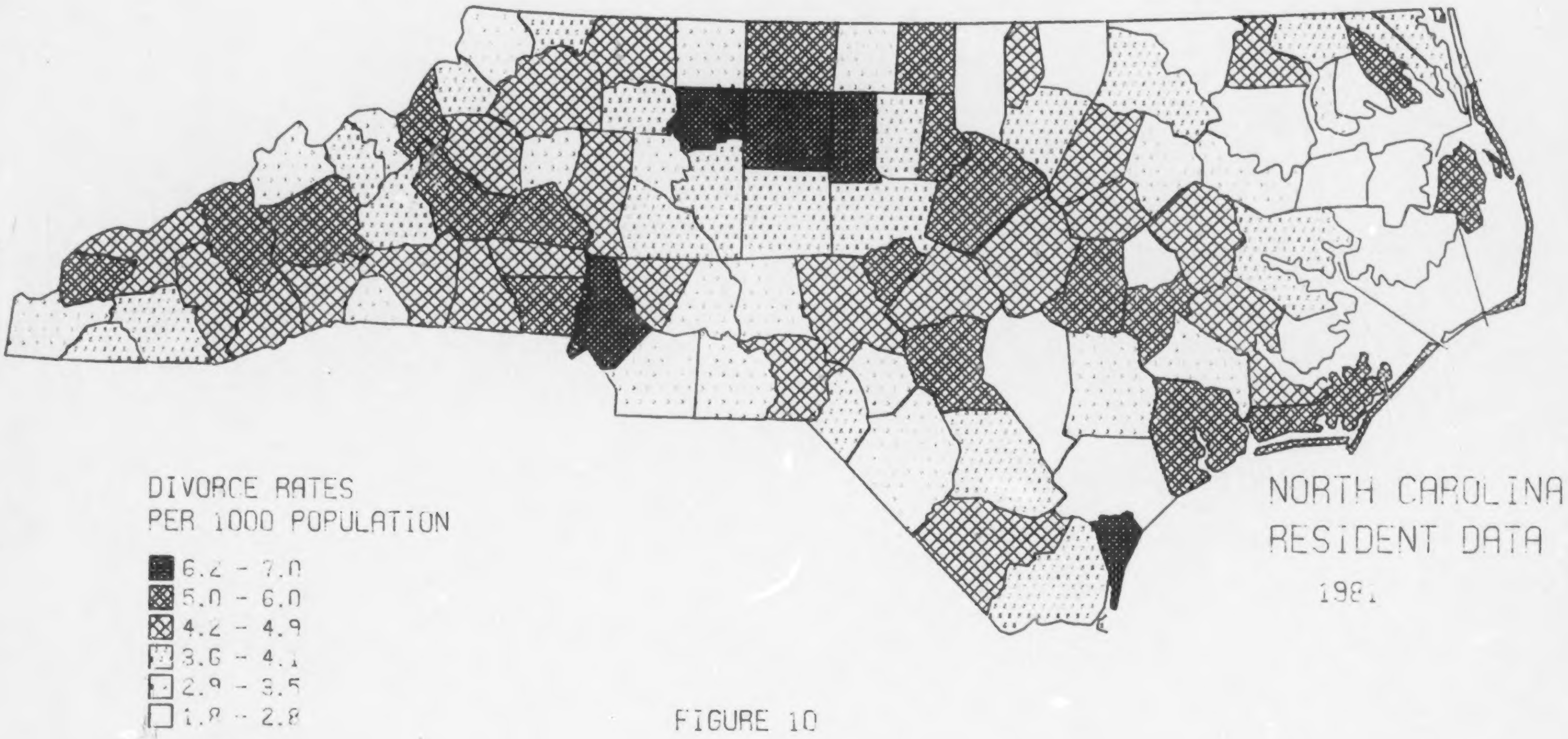

DIVORCE RATES
PER 1000 POPULATION
▩ 6.2 - 7.0
▦ 5.0 - 6.0
▧ 4.2 - 4.9
▤ 3.6 - 4.1
▢ 2.9 - 3.5
☐ 1.8 - 2.8
NORTH CAROLINA
RESIDENT DATA
1981

FIGURE 10

IV. REGISTRATION OF VITAL EVENTS

The origin, flow and disposition of North Carolina vital records are illustrated in the flow diagram on page 1-25. A brief history of vital records processing and current registration practice in North Carolina are discussed below. The user of this report may note in particular the section regarding registration of fetal deaths. Legislation enacted by the 1971 North Carolina General Assembly altered fetal death registration practice to some extent.

Birth and Death

The Bureau of Vital Statistics, with the State Health Director as State Registrar of Vital Statistics, was created by an act of the General Assembly of 1913. The 1973 General Assembly changed the name of the office to the Department of Human Resources. The Director of the Division of Health Services is the State Registrar of Vital Statistics. The authority of this department and the laws which it administers are contained in Chapter 130, Article 7, of the General Statutes of North Carolina. Within the organizational structure of the Department of Human Resources, the duties of the State Registrar of Vital Statistics are accomplished primarily by the Vital Records Branch with support from the State Center for Health Statistics.

The collection of birth and death records began on October 1, 1913. The Department of Human Resources is the custodian of these records. The hospital administrator or person attending a non-hospital delivery is required to file a birth certificate or fetal death report within five days after delivery. The funeral director or person burying a body is responsible for filing a death certificate with the local registrar prior to final disposition and within 5 days after death.

The local registrar is the county health director. A clerk of the county health department, designated by the local registrar and deputy registrar, carries out registration procedures locally. The deputy registrar forwards the original birth and death certificates to the Department of Human Resources on the fifth day of the month following the event, where they are processed and permanently preserved. Microfilmed copies and computerized data from birth and death certificates are sent to the National Center for Health Statistics.

North Carolina was admitted into the National Death Registration Area in 1916 and into the National Birth Registration Area in 1917.

Fetal Death

Prior to May 19, 1971, North Carolina law required the filing of a fetal death certificate for fetal deaths (stillbirths) of 20 or more weeks gestation. Legislation enacted by the 1971 General Assembly and altered by subsequent legislation (G.S. 14-45.1) requires that therapeutic abortions be reported separately. For fetal deaths falling within the purview of the referenced statute, the therapeutic abortion report form now serves in lieu of a fetal death certificate. For this reason, counts of fetal deaths and perinatal deaths since 1971 are not strictly comparable to counts in previous years. In 1981, approximately 143 fetal deaths of 20 or more menstrual weeks of gestation were preferentially reported as therapeutic abortions.

A fetal death certificate must be filed with the local registrar within 72 hours after delivery.

Marriage and Divorce

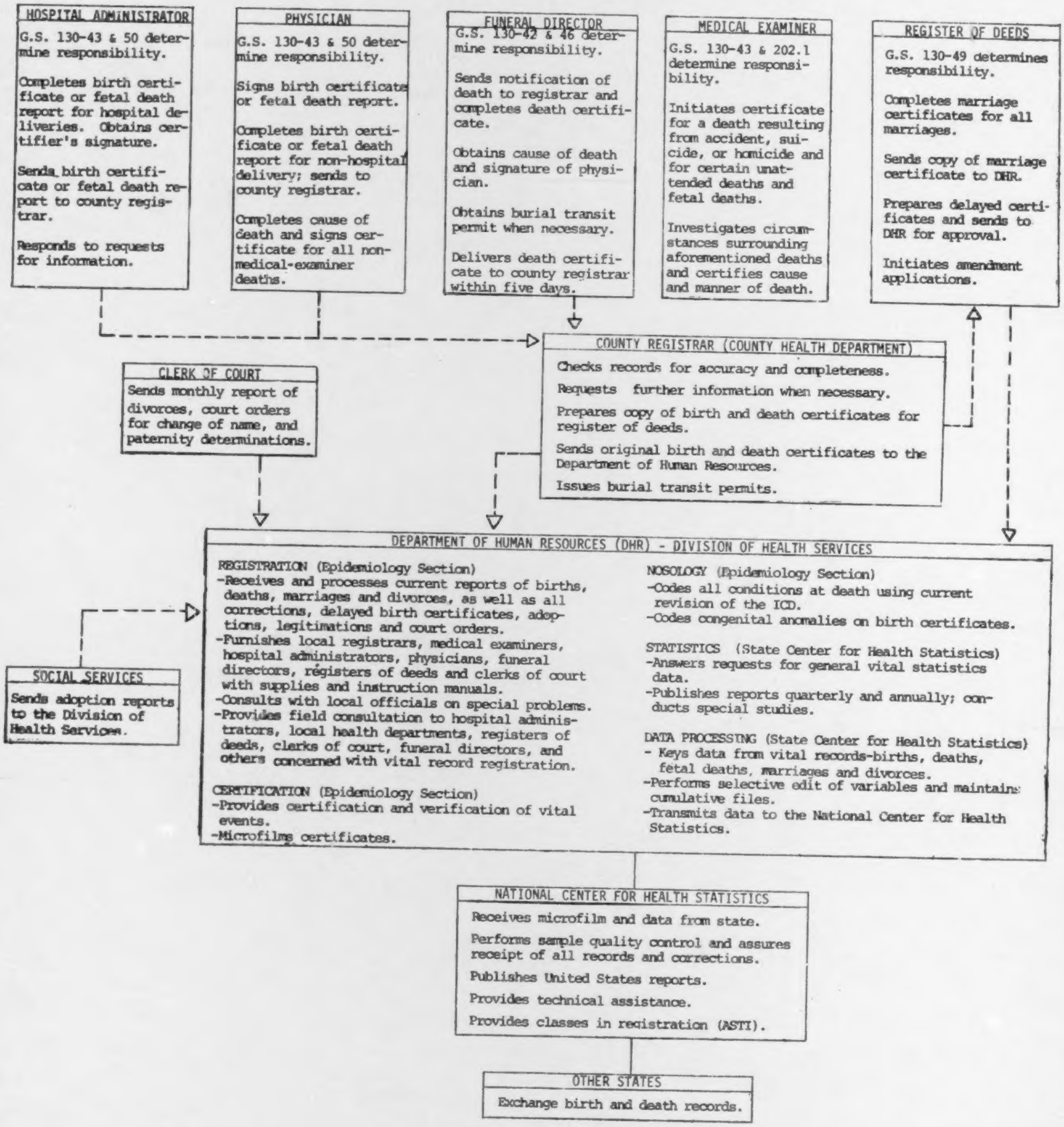
In 1957, the General Assembly enacted legislation requiring that the duties of the clerk of court include the registration of divorces and annulments of marriage effective January 1, 1958. Lists of divorces and annulments are required to be sent to the Department of Human Resources on or before the 15th day of the month following the event.

By virtue of legislation enacted in 1961, the duties of the county register of deeds include the registration of marriages occurring on or after January 1, 1962. Copies of the certificates of marriage are required to be forwarded to the Department of Human Resources on or before the 15th day of the month following the marriage. The original certificates are filed with the county registers of deeds.

In January 1964, North Carolina was admitted to the National Marriage Registration Area. North Carolina is not a member of the National Divorce Registration Area.

THE ORIGIN, FLOW, AND DISPOSITION OF VITAL RECORDS

NORTH CAROLINA



HOSPITAL ADMINISTRATOR

G.S. 130-43 & 50 determine responsibility.

Completes birth certificate or fetal death report for hospital deliveries. Obtains certifier's signature.

Sends birth certificate or fetal death report to county registrar.

Responds to requests for information.

PHYSICIAN

G.S. 130-43 & 50 determine responsibility.

Signs birth certificate or fetal death report.

Completes birth certificate or fetal death report for non-hospital delivery; sends to county registrar.

Completes cause of death and signs certificate for all non-medical-examiner deaths.

FUNERAL DIRECTOR

G.S. 130-42 & 46 determine responsibility.

Sends notification of death to registrar and completes death certificate.

Obtains cause of death and signature of physician.

Obtains burial transit permit when necessary.

Delivers death certificate to county registrar within five days.

MEDICAL EXAMINER

G.S. 130-43 & 202.1 determine responsibility.

Initiates certificate for a death resulting from accident, suicide, or homicide and for certain unattended deaths and fetal deaths.

Investigates circumstances surrounding aforementioned deaths and certifies cause and manner of death.

REGISTER OF DEEDS

G.S. 130-49 determines responsibility.

Completes marriage certificates for all marriages.

Sends copy of marriage certificate to DHR.

Prepares delayed certificates and sends to DHR for approval.

Initiates amendment applications.

COUNTY REGISTRAR (COUNTY HEALTH DEPARTMENT)

Checks records for accuracy and completeness.

Requests further information when necessary.

Prepares copy of birth and death certificates for register of deeds.

Sends original birth and death certificates to the Department of Human Resources.

Issues burial transit permits.

CLERK OF COURT

Sends monthly report of divorces, court orders for change of name, and paternity determinations.

SOCIAL SERVICES

Sends adoption reports to the Division of Health Services.

DEPARTMENT OF HUMAN RESOURCES (DHR) - DIVISION OF HEALTH SERVICES

REGISTRATION (Epidemiology Section)
- Receives and processes current reports of births, deaths, marriages and divorces, as well as all corrections, delayed birth certificates, adoptions, legitimations and court orders.
- Furnishes local registrars, medical examiners, hospital administrators, physicians, funeral directors, registers of deeds and clerks of court with supplies and instruction manuals.
- Consults with local officials on special problems.
- Provides field consultation to hospital administrators, local health departments, registers of deeds, clerks of court, funeral directors, and others concerned with vital record registration.

CERTIFICATION (Epidemiology Section)
- Provides certification and verification of vital events.
- Microfilms certificates.

NOSOLOGY (Epidemiology Section)
- Codes all conditions at death using current revision of the ICD.
- Codes congenital anomalies on birth certificates.

STATISTICS (State Center for Health Statistics)
- Answers requests for general vital statistics data.
- Publishes reports quarterly and annually; conducts special studies.

DATA PROCESSING (State Center for Health Statistics)
- Keys data from vital records-births, deaths, fetal deaths, marriages and divorces.
- Performs selective edit of variables and maintains cumulative files.
- Transmits data to the National Center for Health Statistics.

NATIONAL CENTER FOR HEALTH STATISTICS

Receives microfilm and data from state.

Performs sample quality control and assures receipt of all records and corrections.

Publishes United States reports.

Provides technical assistance.

Provides classes in registration (ASTI).

OTHER STATES

Exchange birth and death records.

V. TECHNICAL NOTES

Residence Allocation

Except as otherwise indicated, vital events in this report are allocated to place of residence. In the case of a birth or fetal death, residence is the usual residence of the mother. For deaths of inmates of long-term institutions (mental, penal, old age, orphan, nursing home, rest home, etc.) the institution is considered the usual residence provided the decedent has resided in the institution at least one year. College students and military personnel are considered residents of the college or military community.

North Carolina participates in an interchange program whereby photocopies on non-resident birth and death certificates are required to be sent to the state of residence within two months of the date of occurrence. The National Center for Health Statistics acts as a control for this interchange through a report from each state which lists the number of each type of vital record sent to every other state. However, delays or omissions in the interchange undoubtedly occur.

Occurrence Allocation

Items 7 and 16 of the tables allocate live births and deaths respectively to place of occurrence regardless of place of residence. Marriage and divorce data are complied only by place of occurrence-county of license for marriages and county of decree for divorces and annulments-because (i) all states do not engage in an interchange program whereby we receive notification of North Carolina residents who marry or divorce in other states and (ii) the two parties to these proceedings are often residents of different counties or states.

Race or Color Allocation

Two broad categories, "white" and "nonwhite", are used in this report. Nonwhite is predominantly Black (93%) in North Carolina (2). For births and fetal deaths, where one parent is classified as white and the other nonwhite, the child is classified as nonwhite.

Due to some cases of dissimilar races of the two parties involved in marriage and divorce/annulment proceedings and to a number of "not stated" race cases, frequencies and rates for these events are shown only for the total.

Completeness of Registration of Vital Events

Completeness of registration is defined as the degree to which reported vital event enumerations agree with the true counts in a given time frame. Birth registration, tested for completeness in 1940 and 1950, was found to be 86 and 96 percent complete respectively (8). Death registration is believed to be even more complete than birth registration. Fetal death registration, tested for completeness in 1974, was found to be 99 percent complete (9).

Marriage registration was tested for completeness in 1963. Over 99 percent of performed marriages terminated in properly recorded certificates of marriage (10).

Delayed registration results in underenumeration of vital events for a specific time period. Frequency counts in this report are based on 1981 events filed with the local registrar prior to April 1, 1982 and processed in the state office before the end of April 1982. Based on examinations of lagtimes in prior years, the number of calendar year events filed after April 1 of the subsequent year is considered negligible. As this publication goes to press, 34 births, 22 deaths, and 1 fetal death for 1981 were filed after April 1 and not added to the statistical file. These residuals are considered amongst the 0.2 - 0.5% which may finally accrue.

In addition to the above, a source of incompleteness in residence data could involve failure of other states to send photocopies for North Carolina resident events occurring in their states (see discussion of interchange program, page 1-27). The extent to which this occurs is unknown.

Accuracy of Items on Certificates

The Vital Records Branch maintains continuous surveillance of certificates to detect inconsistencies in related items (e.g., newborn's name vs. sex). However, the true extent of bias and unreliability due to incorrect answers is not known.

Treatment of Missing Values

As a result of a query program to reconcile inconsistencies in the data and to complete unanswered items, missing values are rare for the characteristics included in this report. These "not stated" cases are treated in one of two ways:

(1) not allocated because they are believed to have an unknown distribution which is different from the distribution for "stated" cases;

(2) randomly distributed in the same proportion as the "stated" cases for the state.

The following table shows the number and treatment of missing values in the statistical files underlying this report. In the case of race and legitimacy, most of the missing values are due to absence of these items on certificates from other states.

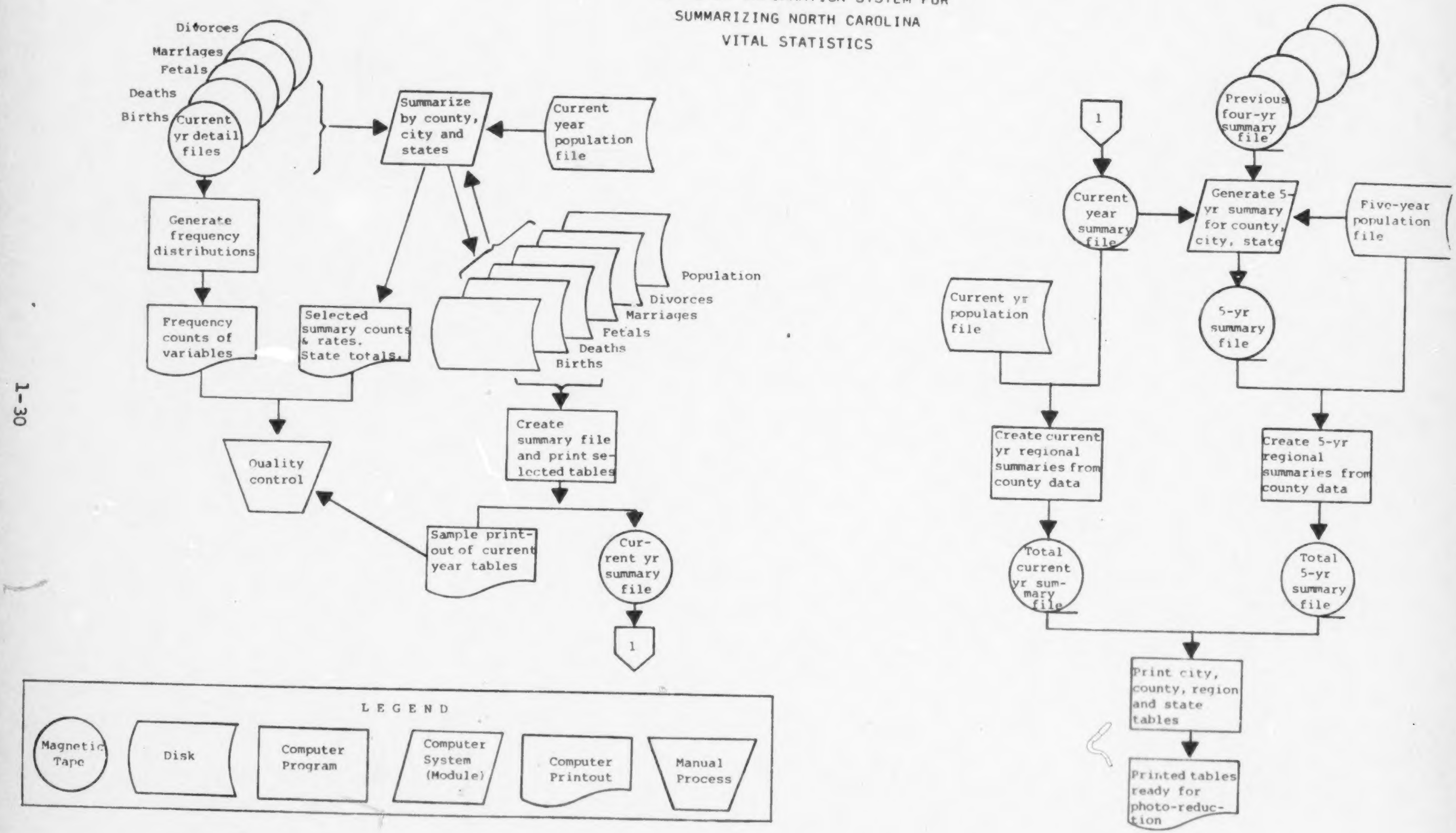
Number of Missing Values by Item and Treatment
North Carolina, 1981

	Treatment of Missing Values	
	Treatment 1	Treatment 2
Live Births		
Sex	0	1
Birth Weight	45	0
Legitimacy	8	0
Race	0	4
Deaths		
Age	0	12
Race	0	28
Sex	0	1
Fetals		
Legitimacy	2	0
Race	0	2

Data Processing

The computer information system used to generate the data of this report is depicted on the next page.

COMPUTER INFORMATION SYSTEM FOR SUMMARIZING NORTH CAROLINA VITAL STATISTICS


Divorces
Marriages
Fetals
Deaths
Births
Current yr detail files
Generate frequency distributions
Frequency counts of variables
Summarize by county, city and states
Current year population file
Selected summary counts & rates. State totals.
Population
Divorces
Marriages
Fetals
Deaths
Births
Quality control
Create summary file and print selected tables
Sample print-out of current year tables
Current yr summary file
1
1
Current year summary file
Previous four-yr summary file
Generate 5-yr summary for county, city, state
Five-year population file
5-yr summary file
Current yr population file
Create current yr regional summaries from county data
Create 5-yr regional summaries from county data
Total current yr summary file
Total 5-yr summary file
Print city, county, region and state tables
Printed tables ready for photo-reduction
LEGEND
Magnetic Tape
Disk
Computer Program
Computer System (Module)
Computer Printout
Manual Process

VI. POPULATION BASES AND BIASES IN PRE-1980 VITAL STATISTICS RATES

Every ten years (years ending in zero) the U.S. Bureau of the Census conducts a count of the United States population, which includes a profile of the population's characteristics such as age, race, and sex. After a census year, estimates of population size and composition are based on knowledge of the population in the census year plus subsequent events such as births, deaths, and migration. In the latter years of a decade, estimates may depart considerably from the "true" population values to the extent that assumptions, particularly about in- and out-migration, depart from what has actually occurred. Thus, an estimate of the 1979 population of North Carolina based on projection from 1970 may differ from an estimate of the 1979 population based on knowledge of a more current (1980) census count. Since most vital statistics rates are based on population counts in the denominator, changes in population such as might result from a new census may cause substantial change in the trend of rates over time.

To complicate the problem even further, there was an under-count of the population of North Carolina in the 1970 census, particularly among nonwhites. Thus, projections for later years were low and rates based on those population projections correspondingly high. Therefore, changing to 1980 census figures for rate denominators caused a decrease in rates from 1979 to 1980, to the extent that the 1980 census figures were higher than 1980 projections based on the 1970 census.

Users of SCHS publications for 1979 and prior years must be aware of these biases when looking at trends in rates, particularly when analysis is at the county level or for the nonwhite population. In the meantime, the five-year rates of the current volume are based on a new series of population bases resulting from interpolations between the 1970 and 1980 censuses.

(Note: For further detail concerning biases in the population-based rates published for the 1970's, the user should refer to pages 1-33 through 1-37 of the 1980 version of this publication.)

VII. DEFINITIONS AND FORMULAS

Definitions and formulas given in this section represent terms and computing procedures for the data of this report. Formulas for the rates are of the form

$$\frac{E}{P} \times r$$

where E represents vital event enumerations for the calendar year or five-year period, P represents related vital events or the population base for the calendar year or five-year period and r is the base (100 or 1,000) for expressing the number of individuals at risk. The computing formula for a five-year rate is

$$\frac{E_1 + E_2 + E_3 + E_4 + E_5}{P_1 + P_2 + P_3 + P_4 + P_5} \times r$$

Definitions and formulas are given in the numerical order of their appearance in the tables.

Definitions

1. Population is the population of an area as enumerated July 1, 1981. Total and race-specific counts are final census figures while sex- and age-specific counts are based on projections adjusted to the race-specific census counts.

2. Natural Increase is the excess of births over deaths among residents of an area.

3. A Live Birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or any definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached (definition adopted by World Health Organization in 1950).

4. Attendant is a physician and whether a hospital or non-hospital place of birth; a certified nurse midwife; or a permitted midwife. New

legislation during 1979-81 allows a certified nurse midwife (CNM) to perform deliveries in a hospital or other medical facility and to obtain a permit to perform deliveries outside a medical facility. During 1981, permitted CNMs attended only a few births; thus, the category "permitted midwife" largly includes lay midwives.

5. Premature Birth is defined as birth of a liveborn infant weighing under 2500 grams (5 pounds, 8 ounces or less) at birth, regardless of the period of gestation. (Birth weight index recommended by the Expert Group on Prematurity of the World Health Organization, 1950.)

6. Birth Out of Wedlock is birth to a woman who has never been legally married or who has been widowed or legally divorced from her husband in excess of 280 days (11).

7. An Occurrence Birth is one that occurs in an area irrespective of place of residence. Live Births occurring in an area to residents of the area are also shown in the tables. Complementary totals, i.e., non-resident births occurring in the area and resident births occurring elsewhere, may be obtained by subtraction.

8. Perinatal Deaths are the sum of registered fetal deaths and neonatal deaths (see definitions below).

9. Fetal Death is death prior to the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy, as indicated by the fact that after such expulsion or extraction the fetus does not breathe or show any evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles (definition adopted by World Health Organization in 1950). Consistent with North Carolina law, this report includes only fetal deaths which do not qualify as therapeutic abortions and which result from pregnancies of 20 or more weeks gestation (see Section IV).

10. Neonatal Death is death of a liveborn child under 28 days of age.

11. Postneonatal Death is death of an infant 28 days and over but less than 1 year of age.

12. Infant Death is defined as death of a liveborn infant under one year of age.

13. Death is defined as the permanent disappearance of any evidence of life at any time after live birth (12). Also, North Carolina law (G.S. 90-322) defines criteria for certifying "brain death."

14. Age at Death is reported age in completed years as of the last birthday. Errors in reporting are believed to include underestimates for ages 22 through middle age and overestimates for persons nearing their 21st and 65th birthdays and for those over age 65. Preferences for ages ending in certain digits (e.g., age ending in 0 and 5) may also result in undue concentrations of reported ages (13).

15. Place of Death is the hospital, other institution or non-institution place of death.

16. An Occurrence Death is one that occurs in an area irrespective of place of residence.

17. Marriage is defined as the legal union of a male and a female (North Carolina G.S. 51-1). Marriages are by place of occurrence and race-specific data are not shown (see Section V).

18. Divorces and Annulments can occur only by decree of an authorized court. Annulments, which void marriage from the beginning, constitute less than one percent of the sum of these events. A divorce from bed and board is a judicial separation suspending cohabitation but not otherwise affecting the marriage bond. Divorces from bed and board are not included in this report. Divorces and annulments are by place of occurrence and race-specific data are not shown (see Section V).

Formulas

The relative frequency with which a vital event occurs is expressed in the rates of this report. Rates are simple ratios of two numbers which represent population enumerations for a given time period. For annual rates, numerators in these ratios are vital event counts and denominators represent related vital event counts or population projections for the calendar year. For the five-year rates, which are expressed as average annual rates, numerators in the ratios are vital event counts and denominators are the related vital event counts (or the population accumulated over the 5-year period). In some cases, the numerators are proper subsets of the denominator; usually these rates are expressed as percentages. Other rates are expressed in terms of 1,000 related events or population. For example, the crude birth rate is expressed as "the number of live births per 1,000 population."

Rates are rounded to one decimal place for publication. Except for marriage and divorce events for which race-specific rates are not calculated, a blank in the rate column indicates that both the numerator and the denominator are zero. A rate of 0.0 is shown for rates less than 0.05.

Inaccurate reporting, underregistration and missing values have been discussed (Section V). These factors affect the validity of items of information involved in rate computation. The user of vital statistics measures should be aware of these possible limitations.

Also, one should interpret with caution rates which are based on small frequencies since these may be associated with relatively large chance fluctuation. For this reason, five-year rates are included. Based on an increased number of events, these average annual rates are more stable than the single-year rates.

In comparing rates, one must carefully examine the various factors to which a difference in rates might be attributed. Unless the populations are equivalent in all factors except the one for which the comparison is made, conclusions about differences in rates may not be clearly drawn. Age-adjusted rates or other further analyses may be necessary in order to make valid comparisons.

Except for items 7 and 16-18, rates are for resident events. The rate formulas are:

1. Population

$$\text{Percentage of N.C. population residing in area} = \frac{\text{Population of area}}{\text{Population of North Carolina}} \times 100$$

$$\text{Percentage male population in area} = \frac{\text{Male population of area}}{\text{Total population of area}} \times 100$$

$$\text{Percentage female population in area} = \frac{\text{Female population of area}}{\text{Total population of area}} \times 100$$

2. Natural Increase

$$\text{Rate of natural increase} = \frac{\text{Number of live births minus number of deaths}}{\text{Population of area}} \times 1000$$

3. Live Births

$$\text{Birth rate} = \frac{\text{Number of live births}}{\text{Population of area}} \times 1000$$

$$\text{Male birth rate} = \frac{\text{Number of male live births}}{\text{Population of area}} \times 1000$$

$$\text{Female birth rate} = \frac{\text{Number of female live births}}{\text{Population of area}} \times 1000$$

4. Attendant

$$\begin{array}{c}\text{Percentage of live births}\\ \text{attended by physician in hospital}\end{array} = \frac{\begin{array}{c}\text{Number of live births attended}\\ \text{by physician in hospital}\end{array}}{\text{Number of live births}} \times 100$$

$$\begin{array}{c}\text{Percentage of live births}\\ \text{attended by physician not in hospital}\end{array} = \frac{\begin{array}{c}\text{Number of live births attended}\\ \text{by physician not in hospital}\end{array}}{\text{Number of live births}} \times 100$$

$$\begin{array}{c}\text{Percentage of live births}\\ \text{attended by certified nurse midwife}\end{array} = \frac{\begin{array}{c}\text{Number of live births attended}\\ \text{by certified nurse midwife}\end{array}}{\text{Number of live births}} \times 100$$

$$\begin{array}{c}\text{Percentage of live births}\\ \text{attended by permitted midwife}\end{array} = \frac{\begin{array}{c}\text{Number of live births attended}\\ \text{by permitted midwife}\end{array}}{\text{Number of live births}} \times 100$$

5. Premature Births

$$\begin{array}{c}\text{Percentage of live births}\\ \text{classified as premature}\end{array} = \frac{\text{Number of premature live births}}{\text{Number of live births}} \times 100$$

6. Births out of Wedlock

$$\begin{array}{c}\text{Percentage of live births}\\ \text{occurring out of wedlock}\end{array} = \frac{\begin{array}{c}\text{Number of live births}\\ \text{occurring out of wedlock}\end{array}}{\text{Number of live births}} \times 100$$

7. Occurrence Births

$$\begin{array}{c}\text{Percentage of N.C. live births}\\ \text{occurring in area}\end{array} = \frac{\begin{array}{c}\text{Number of live births}\\ \text{occurring in area}\end{array}}{\begin{array}{c}\text{Number of live births}\\ \text{occurring in N.C.}\end{array}} \times 100$$

$$\begin{array}{c}\text{Percentage of area live births}\\ \text{occurring to residents of area}\end{array} = \frac{\begin{array}{c}\text{Number of resident live}\\ \text{births occurring in area}\end{array}}{\begin{array}{c}\text{Number of total live}\\ \text{births occurring in area}\end{array}} \times 100$$

8. Perinatal Deaths

$$\text{Perinatal mortality rate} = \frac{\text{Number of fetal deaths plus number of neonatal deaths}}{\text{Number of live births plus number of fetal deaths}} \times 1000$$

9. Fetal Deaths

$$\text{Fetal mortality rate} = \frac{\text{Number of fetal deaths}}{\text{Number of live births plus number of fetal deaths}} \times 1000$$

$$\text{Percentage of fetal deaths attended by physician in hospital} = \frac{\text{Number of fetal deaths attended by physician in hospital}}{\text{Number of fetal deaths}} \times 100$$

$$\text{Percentage of fetal deaths attended by physician not in hospital} = \frac{\text{Number of fetal deaths attended by physician not in hospital}}{\text{Number of fetal deaths}} \times 100$$

$$\text{Percentage of fetal deaths attended by certified nurse midwife} = \frac{\text{Number of fetal deaths attended by certified nurse midwife}}{\text{Number of fetal deaths}} \times 100$$

$$\text{Percentage of fetal deaths attended by permitted midwife} = \frac{\text{Number of fetal deaths attended by permitted midwife}}{\text{Number of fetal deaths}} \times 100$$

$$\text{Percentage of fetal deaths occurring out of wedlock} = \frac{\text{Number of fetal deaths occurring out of wedlock}}{\text{Number of fetal deaths}} \times 100$$

10. Neonatal Deaths

$$\text{Neonatal mortality rate} = \frac{\text{Number of neonatal deaths}}{\text{Number of live births}} \times 1000$$

11. Postneonatal Deaths

$$\text{Postneonatal mortality rate} = \frac{\text{Number of postneonatal deaths}}{\text{Number of live births minus number of neonatal deaths}} \times 1000$$

12. Infant Deaths

$$\text{Infant mortality rate} = \frac{\text{Number of infant deaths}}{\text{Number of live births}} \times 1000$$

13. Deaths

$$\text{Death rate} = \frac{\text{Number of deaths}}{\text{Population of area}} \times 1000$$

$$\text{Male-specific death rate} = \frac{\text{Number of male deaths}}{\text{Male population of area}} \times 1000$$

$$\text{Female-specific death rate} = \frac{\text{Number of female deaths}}{\text{Female population of area}} \times 1000$$

14. Age-specific Deaths

$$\begin{array}{c}\text{Age-specific}\\ \text{death rate}\end{array} = \frac{\text{Number of deaths in age group}}{\text{Population in age group}} \times 1000$$

15. Place of Death

$$\begin{array}{c}\text{Percentage of deaths}\\ \text{occurring in hospitals}\end{array} = \frac{\begin{array}{c}\text{Number of deaths}\\ \text{in hospitals}\end{array}}{\text{Number of deaths}} \times 100$$

$$\begin{array}{c}\text{Percentage of deaths}\\ \text{occurring in non-hospital institutions}\end{array} = \frac{\begin{array}{c}\text{Number of deaths}\\ \text{in non-hospital institutions}\end{array}}{\text{Number of deaths}} \times 100$$

$$\begin{array}{c}\text{Percentage of deaths}\\ \text{occurring in home or non-institutions}\end{array} = \frac{\begin{array}{c}\text{Number of deaths in}\\ \text{home or non-institutions}\end{array}}{\text{Number of deaths}} \times 100$$

16. Occurrence Deaths

$$\begin{array}{c}\text{Percentage of N.C. deaths}\\ \text{occurring in area}\end{array} = \frac{\begin{array}{c}\text{Number of deaths}\\ \text{occurring in area}\end{array}}{\begin{array}{c}\text{Number of deaths}\\ \text{occurring in North Carolina}\end{array}} \times 100$$

$$\begin{array}{c}\text{Percentage of area deaths}\\ \text{occurring to residents of area}\end{array} = \frac{\begin{array}{c}\text{Number of resident deaths}\\ \text{occurring in area}\end{array}}{\begin{array}{c}\text{Number of total deaths}\\ \text{occurring in area}\end{array}} \times 100$$

17. Marriages

$$\text{Marriage rate} = \frac{\text{Number of marriages occurring in area}}{\text{Population of area}} \times 1000$$

18. Divorces and Annulments

$$\text{Divorce/Annulment rate} = \frac{\text{Number of divorces and annulments occurring in area}}{\text{Population of area}} \times 1000$$

SYMBOLS

Quantity (frequency) is zero	0
Rate is less than 0.05	0.0
Rate is not applicable	blank space

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STATE
TABLE

SELECTED VITAL STATISTICS FOR 1977-1981

NORTH CAROLINA

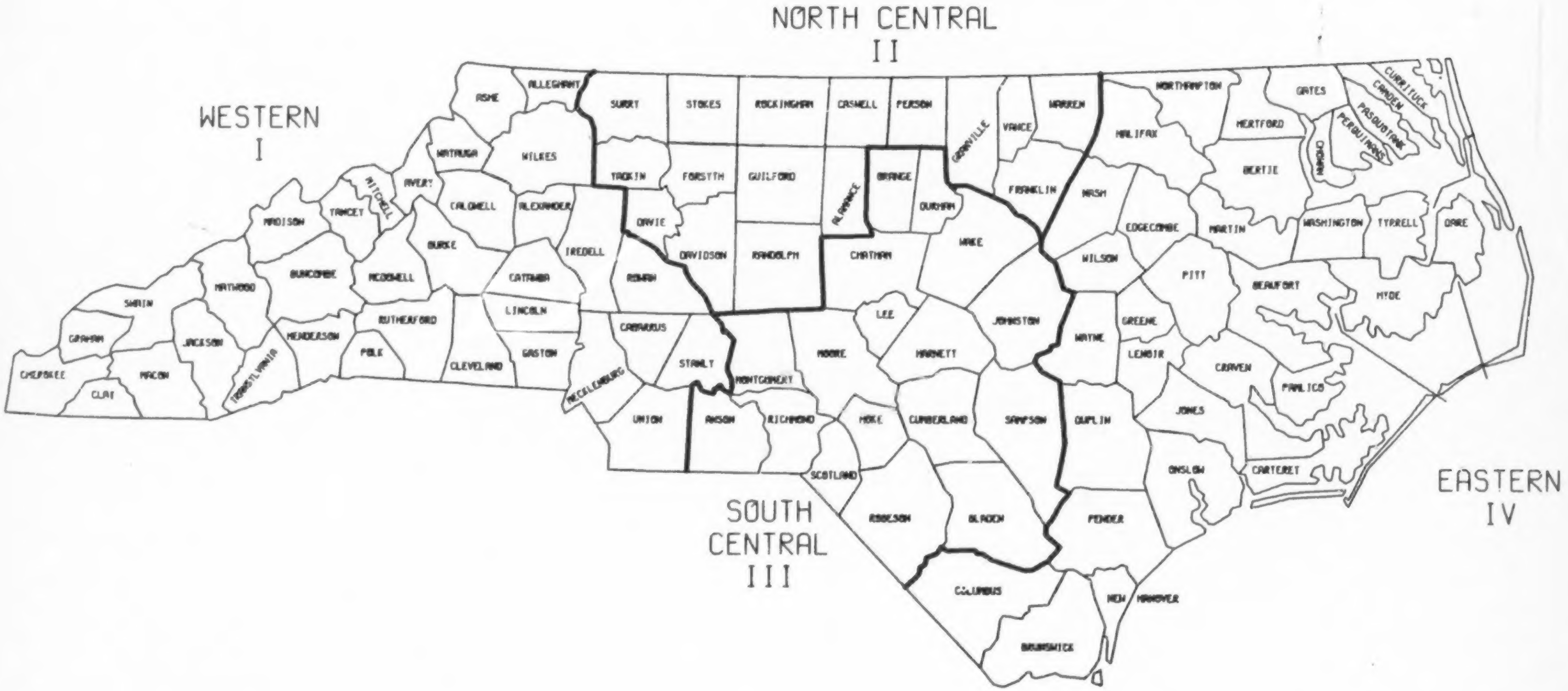
ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	5960505	100.0	100.0	4508561	100.0	100.0	1451944	100.0	100.0
MALES	2892900	48.5	48.5	2201983	48.8	48.8	690917	47.6	47.4
FEMALES	3067605	51.5	51.5	2306578	51.2	51.2	761027	52.4	52.6
2. NATURAL INCREASE	34540	5.8	6.3	19807	4.4	4.8	14733	10.1	11.1
LIVE BIRTHS									
3. TOTAL	83752	14.1	14.7	56756	12.6	13.0	26996	18.6	20.0
MALES	42778	7.2	7.5	28993	6.4	6.7	13785	9.5	10.1
FEMALES	40974	6.9	7.2	27763	6.2	6.3	13211	9.1	9.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	81583	97.4	98.4	55537	97.9	98.8	26046	96.5	97.6
PHYSICIAN NOT IN HOSPITAL	237	0.3	0.5	128	0.2	0.3	109	0.4	0.8
#CERTIFIED NURSE MIDWIFE	1602	1.9	0.7	888	1.6	0.5	714	2.6	1.0
PERMITTED MIDWIFE	47	0.1	0.2	16	0.0	0.1	31	0.1	0.4
5. PREMATURE BIRTHS	6588	7.9	8.0	3392	6.0	6.1	3196	11.8	11.9
6. OUT OF WEDLOCK	16210	19.4	18.4	3696	6.5	5.8	12514	46.4	44.6
7. OCCURRENCE									
TOTAL	84463	100.0	100.0	57344	100.0	100.0	27119	100.0	100.0
TO RESIDENTS	82810	98.0	98.1	56021	97.7	97.7	26789	98.8	99.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1603	18.9	21.1	871	15.2	16.9	732	26.7	29.9
9. FETAL DEATHS	864	10.2	10.9	466	8.1	8.6	398	14.5	15.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	841	97.3	97.8	457	98.1	98.6	384	96.5	96.8
PHYSICIAN NOT IN HOSPITAL	14	1.6	1.5	4	0.9	0.9	10	2.5	2.3
#CERTIFIED NURSE MIDWIFE	3	0.3	0.1	3	0.6	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.1
OUT OF WEDLOCK	265	30.7	28.3	53	11.4	9.3	212	53.3	50.0
10. NEONATAL (UNDER 28 DAYS)	739	8.8	10.3	405	7.1	8.3	334	12.4	14.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	364	4.4	4.8	203	3.6	3.6	161	6.0	7.2
12. INFANT DEATHS (UNDER 1 YEAR)	1103	13.2	15.0	608	10.7	11.9	495	18.3	21.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	49212	8.3	8.3	36949	8.2	8.2	12263	8.4	8.8
MALES	27484	9.5	9.8	20520	9.3	9.5	6964	10.1	10.7
FEMALES	21728	7.1	7.0	16429	7.1	7.0	5299	7.0	7.2
14. AGE									
00-04 YEARS	1321	3.2	3.7	733	2.6	2.8	588	4.7	5.7
05-14 YEARS	287	0.3	0.4	192	0.3	0.3	95	0.3	0.4
15-24 YEARS	1204	1.1	1.1	893	1.1	1.1	311	1.0	1.2
25-34 YEARS	1342	1.4	1.4	804	1.1	1.1	538	2.2	2.6
35-44 YEARS	1895	2.6	2.8	1172	2.0	2.2	723	5.0	5.8
45-54 YEARS	3921	6.5	7.0	2660	5.4	5.9	1261	11.0	11.5
55-64 YEARS	8330	14.9	15.7	6043	13.3	14.2	2287	21.6	21.9
65 AND OVER	30912	49.3	50.3	24452	48.4	49.9	6460	52.7	52.1
15. PLACE OF DEATH									
HOSPITAL	33680	68.4	67.7	25206	68.2	67.6	8474	69.1	68.2
OTHER INSTITUTION	7624	15.5	16.4	5962	16.1	16.9	1662	13.6	14.9
HOME OR NON-INSTITUTION	7908	16.1	15.9	5781	15.6	15.6	2127	17.3	16.9
16. OCCURRENCE									
TOTAL	49668	100.0	100.0	37338	100.0	100.0	12330	100.0	100.0
TO RESIDENTS	48020	96.7	96.6	35951	96.3	96.2	12069	97.9	97.7
OTHER EVENTS									
17. MARRIAGES	48109	8.1	8.0						
18. DIVORCES AND ANNULMENTS	29593	5.0	4.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

Department of
Human Resources
Regions

REGION
TABLES

NORTH CAROLINA DHR REGIONS


NORTH CENTRAL
II
WESTERN
I
SOUTH
CENTRAL
III
EASTERN
IV
ASHE
ALLEGHANY
SURRY
STOKES
ROCKINGHAM
CASWELL
PERSON
GRANVILLE
VANCE
WARREN
NORTHAMPTON
GATES
CURRITUCK
CAMDEN
PASQUOTANK
PERQUIMANS
CHOWAN
HERTFORD
HALIFAX
BERTIE
WATAUGA
WILKES
YADKIN
FORSYTH
GUILFORD
ALAMANCE
ORANGE
DURHAM
FRANKLIN
NASH
EDGECOMBE
MARTIN
WASHINGTON
TYRRELL
DARE
AVERY
MITCHELL
YANCEY
MADISON
CALDWELL
ALEXANDER
DAVIE
DAVIDSON
RANDOLPH
CHATHAM
WAKE
WILSON
PITT
BEAUFORT
HYDE
BURKE
IREDELL
ROWAN
HAYWOOD
BUNCOMBE
MCDOWELL
CATAWBA
JOHNSTON
GREENE
SWAIN
LINCOLN
RUTHERFORD
CABARRUS
LEE
GRAHAM
JACKSON
HENDERSON
POLK
CLEVELAND
GASTON
STANLY
MOORE
HARNETT
WAYNE
LENOIR
CRAVEN
PAMLICO
CHEROKEE
CLAY
MACON
TRANSYLVANIA
MECKLENBURG
MONTGOMERY
JONES
UNION
ANSON
RICHMOND
HOKE
CUMBERLAND
SAMPSON
DUPLIN
ONSLOW
CARTERET
SCOTLAND
ROBESON
BLADEN
PENDER
COLUMBUS
NEW HANOVER
BRUNSWICK

SELECTED VITAL STATISTICS FOR 1977-1981

D.H.R. I - WESTERN

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	2043249	34.3	34.1	1757399	39.0	38.7	285850	19.7	19.5
MALES	986439	48.3	48.0	851657	48.5	48.2	134782	47.2	46.9
FEMALES	1056810	51.7	52.0	905742	51.5	51.8	151068	52.8	53.1
2. NATURAL INCREASE	9533	4.7	5.2	6442	3.7	4.3	3091	10.8	11.2
LIVE BIRTHS									
3. TOTAL	26736	13.1	13.6	21226	12.1	12.6	5510	19.3	20.2
MALES	13749	6.7	7.0	10882	6.2	6.5	2867	10.0	10.2
FEMALES	12987	6.4	6.7	10344	5.9	6.1	2643	9.2	10.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	26403	98.8	99.3	20951	98.7	99.3	5452	98.9	99.4
PHYSICIAN NOT IN HOSPITAL	66	0.2	0.2	57	0.3	0.2	9	0.2	0.2
#CERTIFIED NURSE MIDWIFE	158	0.6	0.2	124	0.6	0.2	34	0.6	0.2
PERMITTED MIDWIFE	11	0.0	0.0	11	0.1	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	2044	7.6	7.6	1362	6.4	6.4	682	12.4	12.4
6. OUT OF WEDLOCK	4473	16.7	15.5	1635	7.7	6.8	2838	51.5	50.4
7. OCCURRENCE									
TOTAL	27570	32.6	32.6	21876	38.1	38.4	5694	21.0	20.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	523	19.3	20.9	360	16.8	18.0	163	29.1	32.2
9. FETAL DEATHS	300	11.1	11.0	211	9.8	9.5	89	15.9	15.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	292	97.3	98.0	206	97.6	98.5	86	96.6	96.6
PHYSICIAN NOT IN HOSPITAL	4	1.3	1.4	2	0.9	0.8	2	2.2	2.7
#CERTIFIED NURSE MIDWIFE	2	0.7	0.1	2	0.9	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	80	26.7	24.4	27	12.8	11.2	53	59.6	58.5
10. NEONATAL (UNDER 28 DAYS)	223	8.3	10.0	149	7.0	8.2	74	13.4	17.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	102	3.8	4.4	71	3.4	3.8	31	5.7	6.6
12. INFANT DEATHS (UNDER 1 YEAR)	325	12.2	14.3	220	10.4	11.9	105	19.1	23.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	17203	8.4	8.4	14784	8.4	8.3	2419	8.5	9.1
MALES	9566	9.7	9.9	8204	9.6	9.8	1362	10.1	10.9
FEMALES	7637	7.2	7.1	6580	7.3	7.0	1057	7.0	7.5
14. AGE									
00-04 YEARS	378	2.9	3.3	259	2.4	2.7	119	4.8	5.9
05-14 YEARS	93	0.3	0.3	79	0.3	0.3	14	0.2	0.3
15-24 YEARS	385	1.1	1.2	326	1.1	1.2	59	1.0	1.3
25-34 YEARS	447	1.3	1.4	324	1.1	1.1	123	2.5	2.8
35-44 YEARS	612	2.4	2.6	475	2.1	2.2	137	4.5	5.8
45-54 YEARS	1321	6.1	6.4	1046	5.4	5.6	275	12.3	12.7
55-64 YEARS	2770	13.7	14.4	2309	12.7	13.3	461	23.1	23.6
65 AND OVER	11197	47.8	48.5	9966	47.2	47.9	1231	53.2	53.5
15. PLACE OF DEATH									
HOSPITAL	11968	69.6	68.9	10187	68.9	68.4	1781	73.6	72.1
OTHER INSTITUTION	2677	15.6	16.1	2378	16.1	16.6	299	12.4	13.3
HOME OR NON-INSTITUTION	2558	14.9	15.0	2219	15.0	15.1	339	14.0	14.6
16. OCCURRENCE									
TOTAL	17199	34.6	34.3	14733	39.5	39.0	2466	20.0	20.2
OTHER EVENTS									
17. MARRIAGES	15261	7.5	7.3						
18. DIVORCES AND ANNULMENTS	10423	5.1	4.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

D.H.R. II - NORTH CENTRAL

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	1273950	21.4	21.4	988138	21.9	22.0	285812	19.7	19.5
MALES	610150	47.9	47.5	475918	48.2	47.8	134232	47.0	46.6
FEMALES	663800	52.1	52.5	512220	51.8	52.2	151580	53.0	53.4
2. NATURAL INCREASE	5274	4.1	4.5	3321	3.4	3.5	1953	6.6	8.3
LIVE BIRTHS									
3. TOTAL	16006	12.6	13.0	11560	11.7	11.8	4446	15.6	17.4
MALES	8093	6.4	6.7	5856	5.9	6.1	2237	7.8	8.9
FEMALES	7913	6.2	6.3	5704	5.8	5.7	2209	7.7	8.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	15862	99.1	99.3	11449	99.0	99.4	4413	99.3	99.2
PHYSICIAN NOT IN HOSPITAL	17	0.1	0.2	5	0.0	0.1	12	0.3	0.4
#CERTIFIED NURSE MIDWIFE	74	0.5	0.1	73	0.6	0.2	1	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.2
5. PREMATURE BIRTHS	1275	8.0	8.1	722	6.2	6.3	553	12.4	12.3
6. OUT OF WEDLOCK	2887	18.0	17.5	712	6.2	5.8	2175	48.9	46.4
7. OCCURRENCE									
TOTAL	14877	17.6	17.5	11072	19.3	19.1	3805	14.0	14.2
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	268	16.6	19.2	162	13.9	15.7	106	23.5	27.7
9. FETAL DEATHS	137	8.5	9.8	79	6.8	7.7	58	12.9	15.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	134	97.8	98.7	78	98.7	99.3	56	96.6	98.0
PHYSICIAN NOT IN HOSPITAL	2	1.5	1.0	1	1.3	0.7	1	1.7	1.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.3
OUT OF WEDLOCK	41	29.9	28.5	7	8.9	7.8	34	58.6	54.3
10. NEONATAL (UNDER 28 DAYS)	131	8.2	9.5	83	7.2	8.1	48	10.8	12.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	54	3.4	4.2	36	3.1	3.3	18	4.1	6.5
12. INFANT DEATHS (UNDER 1 YEAR)	185	11.6	13.7	119	10.3	11.4	66	14.8	19.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	10732	8.4	8.5	8239	8.3	8.3	2493	8.7	9.1
MALES	5915	9.7	10.1	4552	9.6	9.8	1363	10.2	11.1
FEMALES	4817	7.3	7.1	3687	7.2	7.0	1130	7.5	7.4
14. AGE									
00-04 YEARS	240	3.0	3.2	151	2.6	2.6	89	4.0	4.8
05-14 YEARS	65	0.3	0.3	42	0.3	0.3	23	0.4	0.4
15-24 YEARS	255	1.1	1.2	197	1.2	1.2	58	1.0	1.1
25-34 YEARS	281	1.3	1.4	165	1.0	1.1	116	2.4	2.6
35-44 YEARS	420	2.6	2.8	264	2.0	2.0	156	5.1	6.1
45-54 YEARS	826	6.0	6.6	598	5.2	5.6	228	9.5	11.4
55-64 YEARS	1841	14.6	14.9	1372	13.1	13.5	469	21.8	21.7
65 AND OVER	6804	48.5	50.0	5450	47.3	49.1	1354	54.3	54.3
15. PLACE OF DEATH									
HOSPITAL	7260	67.6	65.4	5543	67.3	65.1	1717	68.9	66.3
OTHER INSTITUTION	1648	15.4	17.0	1314	15.9	17.5	334	13.4	15.4
HOME OR NON-INSTITUTION	1824	17.0	17.6	1382	16.8	17.4	442	17.7	18.3
16. OCCURRENCE									
TOTAL	10535	21.2	21.1	8239	22.1	22.0	2296	18.6	18.4
OTHER EVENTS									
17. MARRIAGES	11099	8.7	8.7						
18. DIVORCES AND ANNULMENTS	6720	5.3	5.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

D.H.R. III - SOUTH CENTRAL

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	1377075	23.1	22.9	931737	20.7	20.6	445338	30.7	30.1
MALES	674093	49.0	49.4	460123	49.4	50.0	213970	48.0	48.2
FEMALES	702982	51.0	50.6	471614	50.6	50.0	231368	52.0	51.8
2. NATURAL INCREASE	10477	7.6	8.3	5237	5.6	6.1	5240	11.8	13.0
LIVE BIRTHS									
3. TOTAL	20721	15.0	16.0	12114	13.0	13.7	8607	19.3	21.1
MALES	10567	7.7	8.2	6201	6.7	7.1	4366	9.8	10.6
FEMALES	10154	7.4	7.8	5913	6.3	6.6	4241	9.5	10.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	19780	95.5	97.7	11648	96.2	98.0	8132	94.5	97.3
PHYSICIAN NOT IN HOSPITAL	62	0.3	0.4	30	0.2	0.3	32	0.4	0.5
#CERTIFIED NURSE MIDWIFE	816	3.9	1.4	405	3.3	1.2	411	4.8	1.7
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.2	0	0.0	0.3
5. PREMATURE BIRTHS	1648	8.0	8.1	648	5.3	5.7	1000	11.6	11.6
6. OUT OF WEDLOCK	4391	21.2	19.8	730	6.0	5.3	3661	42.5	40.4
7. OCCURRENCE									
TOTAL	21974	26.0	26.1	12684	22.1	22.2	9290	34.3	34.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	406	19.4	21.8	176	14.4	16.6	230	26.3	29.3
9. FETAL DEATHS	211	10.1	11.3	86	7.0	7.8	125	14.3	16.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	205	97.2	97.9	85	98.8	98.8	120	96.0	97.3
PHYSICIAN NOT IN HOSPITAL	4	1.9	1.1	1	1.2	0.8	3	2.4	1.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.1
OUT OF WEDLOCK	69	32.7	30.8	8	9.3	9.1	61	48.8	45.7
10. NEONATAL (UNDER 28 DAYS)	195	9.4	10.7	90	7.4	8.9	105	12.2	13.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	105	5.1	5.1	56	4.7	3.6	49	5.8	7.2
12. INFANT DEATHS (UNDER 1 YEAR)	300	14.5	15.7	146	12.1	12.4	154	17.9	20.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	10244	7.4	7.7	6877	7.4	7.6	3367	7.6	8.1
MALES	5785	8.6	8.9	3820	8.3	8.6	1965	9.2	9.7
FEMALES	4459	6.3	6.5	3057	6.5	6.6	1402	6.1	6.5
14. AGE									
00-04 YEARS	363	3.6	4.1	178	3.0	3.0	185	4.6	5.7
05-14 YEARS	65	0.3	0.4	37	0.3	0.4	28	0.3	0.4
15-24 YEARS	291	1.0	1.0	176	0.9	0.9	115	1.1	1.2
25-34 YEARS	309	1.3	1.5	147	0.9	1.0	162	2.1	2.4
35-44 YEARS	432	2.7	3.0	218	1.8	2.2	214	4.8	5.4
45-54 YEARS	878	6.9	7.6	517	5.5	6.3	361	10.9	11.0
55-64 YEARS	1757	15.4	16.8	1178	14.0	15.4	579	19.4	20.7
65 AND OVER	6149	50.2	52.5	4426	50.0	53.2	1723	50.6	50.9
15. PLACE OF DEATH									
HOSPITAL	6824	66.6	66.7	4577	66.6	66.7	2247	66.7	66.8
OTHER INSTITUTION	1751	17.1	17.5	1213	17.6	18.0	538	16.0	16.3
HOME OR NON-INSTITUTION	1669	16.3	15.8	1087	15.8	15.3	582	17.3	16.9
16. OCCURRENCE									
TOTAL	11541	23.2	23.7	7723	20.7	21.2	3818	31.0	31.4
OTHER EVENTS									
17. MARRIAGES	9008	6.5	6.4						
18. DIVORCES AND ANNULMENTS	6868	5.0	4.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

D.H.R. IV - EASTERN

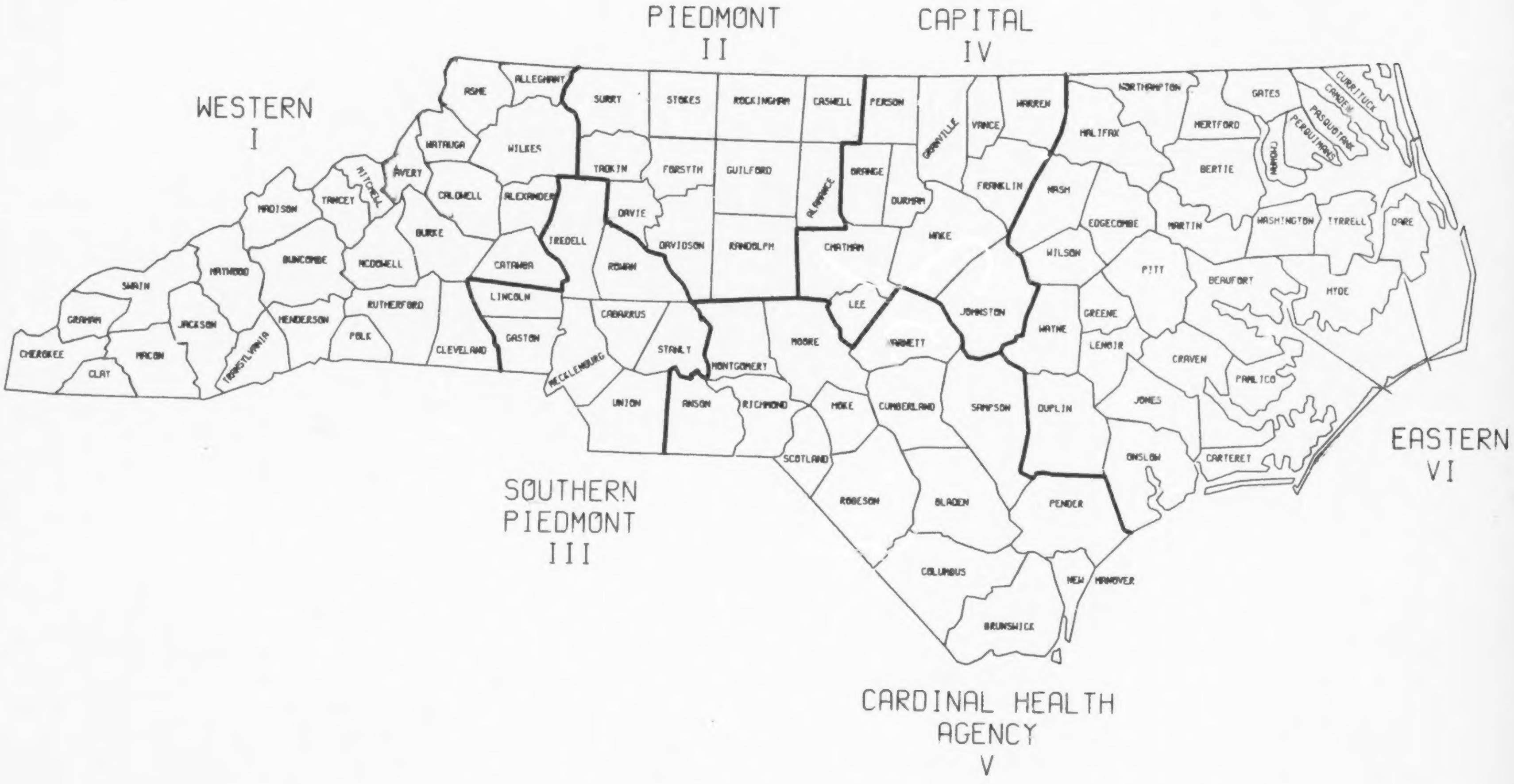
ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	1266231	21.2	21.6	831287	18.4	18.7	434944	30.0	30.9
MALES	622218	49.1	49.2	414285	49.8	50.1	207933	47.8	47.5
FEMALES	644013	50.9	50.8	417002	50.2	49.9	227011	52.2	52.5
2. NATURAL INCREASE	9256	7.3	7.9	4807	5.8	6.2	4449	10.2	11.1
LIVE BIRTHS									
3. TOTAL	20289	16.0	16.6	11856	14.3	14.6	8433	19.4	20.3
MALES	10369	8.2	8.5	6054	7.3	7.5	4315	9.9	10.3
FEMALES	9920	7.8	8.1	5802	7.0	7.1	4118	9.5	10.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	19538	96.3	97.2	11489	96.9	98.1	8049	95.4	96.0
PHYSICIAN NOT IN HOSPITAL	92	0.5	1.0	36	0.3	0.6	56	0.7	1.6
#CERTIFIED NURSE MIDWIFE	554	2.7	1.0	286	2.4	0.9	268	3.2	1.2
PERMITTED MIDWIFE	36	0.2	0.5	5	0.0	0.2	31	0.4	0.9
5. PREMATURE BIRTHS	1621	8.0	8.3	660	5.6	5.9	961	11.4	11.7
6. OUT OF WEDLOCK	4459	22.0	21.2	619	5.2	4.7	3840	45.5	44.3
7. OCCURRENCE									
TOTAL	20042	23.7	23.7	11712	20.4	20.3	8330	30.7	30.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	406	19.8	22.2	173	14.5	16.3	233	27.2	30.4
9. FETAL DEATHS	216	10.5	11.4	90	7.5	8.1	126	14.7	15.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	210	97.2	96.7	88	97.8	97.9	122	96.8	95.8
PHYSICIAN NOT IN HOSPITAL	4	1.9	2.6	0	0.0	1.2	4	3.2	3.5
#CERTIFIED NURSE MIDWIFE	1	0.5	0.2	1	1.1	0.4	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.1
OUT OF WEDLOCK	75	34.7	30.5	11	12.2	7.0	64	50.8	47.2
10. NEONATAL (UNDER 28 DAYS)	190	9.4	11.0	83	7.0	8.3	107	12.7	14.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	103	5.1	5.4	40	3.4	3.4	63	7.6	8.1
12. INFANT DEATHS (UNDER 1 YEAR)	293	14.4	16.3	123	10.4	11.6	170	20.2	22.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	11033	8.7	8.7	7049	8.5	8.4	3984	9.2	9.3
MALES	6218	10.0	10.1	3944	9.5	9.5	2274	10.9	11.3
FEMALES	4815	7.5	7.3	3105	7.4	7.3	1710	7.5	7.5
14. AGE									
00-04 YEARS	340	3.6	4.3	145	2.6	3.0	195	5.0	6.0
05-14 YEARS	64	0.3	0.4	34	0.3	0.4	30	0.4	0.4
15-24 YEARS	273	1.0	1.1	194	1.2	1.1	79	0.8	1.1
25-34 YEARS	305	1.5	1.6	168	1.2	1.1	137	2.0	2.5
35-44 YEARS	431	3.1	3.3	215	2.1	2.2	216	5.4	6.0
45-54 YEARS	896	7.4	8.0	499	5.8	6.5	397	11.3	11.4
55-64 YEARS	1962	16.7	17.6	1184	14.3	15.7	778	22.4	22.0
65 AND OVER	6762	51.9	52.0	4610	51.4	52.5	2152	53.2	50.8
15. PLACE OF DEATH									
HOSPITAL	7628	69.1	69.0	4899	69.5	69.6	2729	68.5	68.0
OTHER INSTITUTION	1548	14.0	15.2	1057	15.0	15.7	491	12.3	14.5
HOME OR NON-INSTITUTION	1857	16.8	15.8	1093	15.5	14.8	764	19.2	17.5
16. OCCURRENCE									
TOTAL	10393	20.9	20.9	6643	17.8	17.9	3750	30.4	30.0
OTHER EVENTS									
17. MARRIAGES	12741	10.1	9.9						
18. DIVORCES AND ANNULMENTS	5582	4.4	4.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

Health Service Areas

AREA TABLES

NORTH CAROLINA HEALTH SERVICE AREAS



PIEDMONT
II
CAPITAL
IV
WESTERN
I
SOUTHERN
PIEDMONT
III
CARDINAL HEALTH
AGENCY
V
EASTERN
VI
ASHE
ALLEGHANY
SURRY
STOKES
ROCKINGHAM
CASWELL
PERSON
GRANVILLE
VANCE
WARREN
NORTHAMPTON
GATES
CURRITUCK
CAMDEN
PASQUOTANK
PERQUIMANS
CHOWAN
HERTFORD
HALIFAX
BERTIE
WATAUGA
WILKES
YADKIN
FORSYTH
GUILFORD
ALAMANCE
ORANGE
DURHAM
FRANKLIN
NASH
MITCHELL
AVERY
YANCEY
MADISON
CALDWELL
ALEXANDER
DAVIE
EDGECOMBE
MARTIN
WASHINGTON
TYRRELL
DARE
BURKE
IREDELL
DAVIDSON
RANDOLPH
CHATHAM
WAKE
WILSON
HAYWOOD
BUNCOMBE
MCDOWELL
CATAWBA
ROWAN
PITT
BEAUFORT
HYDE
SWAIN
LINCOLN
CABARRUS
LEE
JOHNSTON
GREENE
GRAHAM
JACKSON
HENDERSON
RUTHERFORD
GASTON
HARNETT
WAYNE
MOORE
CHEROKEE
MACON
TRANSYLVANIA
POLK
CLEVELAND
STANLY
MONTGOMERY
LENOIR
CRAVEN
PAMLICO
CLAY
MECKLENBURG
UNION
ANSON
RICHMOND
HOKE
CUMBERLAND
SAMPSON
DUPLIN
JONES
ONSLOW
CARTERET
SCOTLAND
ROBESON
BLADEN
PENDER
COLUMBUS
NEW HANOVER
BRUNSWICK

SELECTED VITAL STATISTICS FOR 1977-1981

H.S.A. I - WESTERN

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	1031930	[illegible]	17.2	950335	21.1	20.9	81595	5.6	5.6
MALES	499575	48.4	48.1	460596	48.5	48.2	38979	47.8	47.7
FEMALES	532355	51.6	51.9	489739	51.5	51.8	42616	52.2	52.3
2. NATURAL INCREASE	3677	3.6	4.3	2999	3.2	3.9	678	8.3	9.8
LIVE BIRTHS									
3. TOTAL	12673	12.3	13.1	11237	11.8	12.6	1436	17.6	19.6
MALES	6589	6.4	6.8	5813	6.1	6.5	776	9.5	10.1
FEMALES	6084	5.9	6.3	5424	5.7	6.1	660	8.1	9.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	12506	98.7	99.3	11078	98.6	99.2	1428	99.4	99.6
PHYSICIAN NOT IN HOSPITAL	55	0.4	0.3	54	0.5	0.3	1	0.1	0.3
#CERTIFIED NURSE MIDWIFE	41	0.3	0.1	40	0.4	0.1	1	0.1	0.0
PERMITTED MIDWIFE	11	0.1	0.0	11	0.1	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	939	7.4	7.4	762	6.8	6.8	177	12.3	11.7
6. OUT OF WEDLOCK	1697	13.4	11.9	977	8.7	7.4	720	50.1	46.3
7. OCCURRENCE									
TOTAL	12511	14.8	15.3	11080	19.3	19.9	1431	5.3	5.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	232	18.1	19.7	191	16.8	18.3	41	28.2	30.5
9. FETAL DEATHS	129	10.1	10.9	111	9.8	10.5	18	12.4	14.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	126	97.7	98.3	110	99.1	99.0	16	88.9	94.5
PHYSICIAN NOT IN HOSPITAL	2	1.6	1.4	1	0.9	0.8	1	5.6	4.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	29	22.5	19.3	17	15.3	13.2	12	66.7	53.2
10. NEONATAL (UNDER 28 DAYS)	103	8.1	8.8	80	7.1	7.9	23	16.0	16.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	52	4.1	4.8	39	3.5	4.4	13	9.2	8.5
12. INFANT DEATHS (UNDER 1 YEAR)	155	12.2	13.7	119	10.6	12.2	36	25.1	24.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	8996	8.7	8.8	8238	8.7	8.7	758	9.3	9.8
MALES	5030	10.1	10.4	4609	10.0	10.3	421	10.8	11.6
FEMALES	3966	7.4	7.3	3629	7.4	7.3	337	7.9	8.2
14. AGE									
00-04 YEARS	178	2.7	3.2	140	2.4	2.9	38	5.5	6.3
05-14 YEARS	46	0.3	0.3	43	0.3	0.3	3	0.2	0.3
15-24 YEARS	193	1.1	1.3	173	1.1	1.2	20	1.2	1.5
25-34 YEARS	210	1.3	1.3	175	1.2	1.1	35	2.7	3.1
35-44 YEARS	300	2.3	2.5	268	2.2	2.3	32	3.7	5.7
45-54 YEARS	628	5.8	6.1	554	5.4	5.7	74	11.1	11.8
55-64 YEARS	1348	12.8	13.7	1214	12.3	13.1	134	21.1	22.1
65 AND OVER	6093	46.6	47.9	5671	46.2	47.6	422	53.5	51.3
15. PLACE OF DEATH									
HOSPITAL	6060	67.4	65.8	5492	66.7	65.7	568	74.9	67.4
OTHER INSTITUTION	1529	17.0	17.8	1425	17.3	17.8	104	13.7	17.9
HOME OR NON-INSTITUTION	1407	15.6	16.4	1321	16.0	16.5	86	11.3	14.7
16. OCCURRENCE									
TOTAL	8861	17.8	17.7	8093	21.7	21.6	768	6.2	6.2
OTHER EVENTS									
17. MARRIAGES	8525	8.3	8.3						
18. DIVORCES AND ANNULMENTS	4851	4.7	4.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

H.S.A. II - PIEDMONT

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	1126313	18.9	18.9	904439	20.1	20.1	221874	15.3	15.1
MALES	538742	47.8	47.4	435269	48.1	47.7	103473	46.6	46.2
FEMALES	587571	52.2	52.6	469170	51.9	52.3	118401	53.4	53.8
2. NATURAL INCREASE	4894	4.3	4.7	3252	3.6	3.7	1642	7.4	8.6
LIVE BIRTHS									
3. TOTAL	14076	12.5	12.9	10607	11.7	11.9	3469	15.6	17.5
MALES	7109	6.3	6.6	5375	5.9	6.1	1734	7.8	8.9
FEMALES	6967	6.2	6.3	5232	5.8	5.8	1735	7.8	8.6
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	13947	99.1	99.4	10504	99.0	99.4	3443	99.3	99.4
PHYSICIAN NOT IN HOSPITAL	10	0.1	0.2	3	0.0	0.1	7	0.2	0.3
#CERTIFIED NURSE MIDWIFE	69	0.5	0.1	68	0.6	0.2	1	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	1071	7.6	7.8	658	6.2	6.3	413	11.9	12.1
6. OUT OF WEDLOCK	2378	16.9	16.5	667	6.3	5.9	1711	49.3	47.4
7. OCCURRENCE									
TOTAL	13889	16.4	16.3	10539	18.4	18.1	3350	12.4	12.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	220	15.5	18.5	148	13.9	15.7	72	20.5	26.9
9. FETAL DEATHS	120	8.5	9.6	75	7.0	7.7	45	12.8	15.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	117	97.5	98.8	74	98.7	99.3	43	95.6	98.2
PHYSICIAN NOT IN HOSPITAL	2	1.7	1.0	1	1.3	0.7	1	2.2	1.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	33	27.5	27.1	6	8.0	7.5	27	60.0	55.6
10. NEONATAL (UNDER 28 DAYS)	100	7.1	9.0	73	6.9	8.0	27	7.8	11.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	46	3.3	4.0	33	3.1	3.2	13	3.8	6.3
12. INFANT DEATHS (UNDER 1 YEAR)	146	10.4	13.0	106	10.0	11.3	40	11.5	18.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	9182	8.2	8.3	7355	8.1	8.1	1827	8.2	8.8
MALES	5033	9.3	9.8	4043	9.3	9.6	990	9.6	10.7
FEMALES	4149	7.1	6.9	3312	7.1	6.8	837	7.1	7.2
14. AGE									
00-04 YEARS	192	2.8	3.0	136	2.6	2.5	56	3.3	4.4
05-14 YEARS	53	0.3	0.3	39	0.3	0.3	14	0.3	0.3
15-24 YEARS	217	1.1	1.2	174	1.1	1.2	43	0.9	1.0
25-34 YEARS	239	1.3	1.4	151	1.0	1.1	88	2.3	2.5
35-44 YEARS	353	2.5	2.6	234	2.0	2.0	119	4.9	6.1
45-54 YEARS	726	5.9	6.4	539	5.2	5.5	187	10.2	11.4
55-64 YEARS	1574	14.2	14.6	1234	13.0	13.3	340	21.2	22.3
65 AND OVER	5828	47.9	49.6	4848	46.9	48.6	980	53.5	55.0
15. PLACE OF DEATH									
HOSPITAL	6222	67.8	65.2	4955	67.4	64.9	1267	69.3	66.3
OTHER INSTITUTION	1399	15.2	17.1	1158	15.7	17.5	241	13.2	15.5
HOME OR NON-INSTITUTION	1561	17.0	17.7	1242	16.9	17.6	319	17.5	18.2
16. OCCURRENCE									
TOTAL	9319	18.8	18.7	7534	20.2	20.1	1785	14.5	14.4
OTHER EVENTS									
17. MARRIAGES	9925	8.8	8.8						
18. DIVORCES AND ANNULMENTS	6154	5.5	5.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

H.S.A. III - SOUTHERN PIEDMONT

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	1011319	17.0	16.9	807064	17.9	17.9	204255	14.1	13.9
MALES	486864	48.1	47.9	391061	48.5	48.2	95803	46.9	46.6
FEMALES	524455	51.9	52.1	416003	51.5	51.8	108452	53.1	53.4
2. NATURAL INCREASE	5856	5.8	6.1	3443	4.3	4.7	2413	11.8	11.7
LIVE BIRTHS									
3. TOTAL	14063	13.9	14.2	9989	12.4	12.6	4074	19.9	20.5
MALES	7160	7.1	7.2	5069	6.3	6.4	2091	10.2	10.3
FEMALES	6903	6.8	7.0	4920	6.1	6.2	1983	9.7	10.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	13897	98.8	99.4	9873	98.8	99.4	4024	98.8	99.4
PHYSICIAN NOT IN HOSPITAL	11	0.1	0.1	3	0.0	0.1	8	0.2	0.2
#CERTIFIED NURSE MIDWIFE	117	0.8	0.3	84	0.8	0.3	33	0.8	0.3
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	1105	7.9	7.7	600	6.0	5.8	505	12.4	12.6
6. OUT OF WEDLOCK	2776	19.7	19.0	658	6.6	6.0	2118	52.0	51.9
7. OCCURRENCE									
TOTAL	15059	17.8	17.4	10796	18.8	18.5	4263	15.7	14.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	291	20.4	22.0	169	16.8	17.7	122	29.4	32.8
9. FETAL DEATHS	171	12.0	11.0	100	9.9	9.3	71	17.1	15.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	166	97.1	97.6	96	96.0	97.8	70	98.6	97.3
PHYSICIAN NOT IN HOSPITAL	2	1.2	1.3	1	1.0	0.9	1	1.4	2.0
#CERTIFIED NURSE MIDWIFE	2	1.2	0.3	2	2.0	0.4	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	51	29.8	29.1	10	10.0	8.5	41	57.7	60.5
10. NEONATAL (UNDER 28 DAYS)	120	8.5	11.1	69	6.9	9.5	51	12.5	17.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	50	3.6	3.9	32	3.2	3.1	18	4.5	5.8
12. INFANT DEATHS (UNDER 1 YEAR)	170	12.1	14.9	101	10.1	11.6	69	16.9	23.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	8207	8.1	8.1	6546	8.1	7.9	1661	8.1	8.8
MALES	4536	9.3	9.4	3595	9.2	9.1	941	9.8	10.7
FEMALES	3671	7.0	6.8	2951	7.1	6.8	720	6.6	7.2
14. AGE									
00-04 YEARS	200	3.0	3.4	119	2.4	2.6	81	4.6	5.8
05-14 YEARS	47	0.3	0.3	36	0.3	0.3	11	0.3	0.4
15-24 YEARS	192	1.1	1.2	153	1.1	1.3	39	0.9	1.2
25-34 YEARS	237	1.4	1.4	149	1.1	1.1	88	2.4	2.8
35-44 YEARS	312	2.4	2.6	207	1.9	2.0	105	4.8	5.8
45-54 YEARS	693	6.5	6.7	492	5.4	5.6	201	12.9	13.1
55-64 YEARS	1422	14.7	15.1	1095	13.2	13.5	327	24.0	24.2
65 AND OVER	5104	49.2	49.3	4295	48.6	48.4	809	53.1	54.7
15. PLACE OF DEATH									
HOSPITAL	5908	72.0	72.3	4695	71.7	71.8	1213	73.0	74.2
OTHER INSTITUTION	1148	14.0	14.2	953	14.6	15.0	195	11.7	11.3
HOME OR NON-INSTITUTION	1151	14.0	13.5	898	13.7	13.2	253	15.2	14.5
16. OCCURRENCE									
TOTAL	8338	16.8	16.5	6640	17.8	17.4	1698	13.8	14.0
OTHER EVENTS									
17. MARRIAGES	6736	6.7	6.3						
18. DIVORCES AND ANNULMENTS	5572	5.5	5.3						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

H.S.A. IV - CAPITAL

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	830509	13.9	13.8	589999	13.1	12.9	240510	16.6	16.7
MALES	400385	48.2	48.3	287047	48.7	48.8	113338	47.1	47.1
FEMALES	430124	51.8	51.7	302952	51.3	51.2	127172	52.9	52.9
2. NATURAL INCREASE	4325	5.2	5.6	2452	4.2	4.3	1873	7.8	8.9
LIVE BIRTHS									
3. TOTAL	10873	13.1	13.7	6864	11.6	12.0	4009	16.7	17.8
MALES	5513	6.6	7.0	3483	5.9	6.2	2030	8.4	9.0
FEMALES	5360	6.5	6.7	3381	5.7	5.8	1979	8.2	8.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	10596	97.5	98.5	6630	96.6	98.2	3966	98.9	99.0
PHYSICIAN NOT IN HOSPITAL	32	0.3	0.3	18	0.3	0.2	14	0.3	0.3
#CERTIFIED NURSE MIDWIFE	216	2.0	0.8	197	2.9	1.1	19	0.5	0.2
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.2	0	0.0	0.3
5. PREMATURE BIRTHS	919	8.5	8.5	373	5.4	5.8	546	13.6	12.8
6. OUT OF WEDLOCK	2301	21.2	20.0	342	5.0	4.5	1959	48.9	45.7
7. OCCURRENCE									
TOTAL	11856	14.0	13.8	7418	12.9	12.5	4438	16.4	16.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	223	20.3	21.7	97	14.0	16.0	126	31.0	31.1
9. FETAL DEATHS	99	9.0	10.9	42	6.1	7.9	57	14.0	15.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	96	97.0	98.5	42	100.0	99.3	54	94.7	97.8
PHYSICIAN NOT IN HOSPITAL	1	1.0	0.7	0	0.0	0.4	1	1.8	0.9
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.0	0	0.0	0.3
OUT OF WEDLOCK	32	32.3	30.1	5	11.9	8.9	27	47.4	47.7
10. NEONATAL (UNDER 28 DAYS)	124	11.4	10.9	55	8.0	8.2	69	17.2	15.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	47	4.4	4.6	22	3.2	3.1	25	6.3	7.2
12. INFANT DEATHS (UNDER 1 YEAR)	171	15.7	15.5	77	11.2	11.3	94	23.4	22.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	6548	7.9	8.1	4412	7.5	7.7	2136	8.9	8.9
MALES	3619	9.0	9.5	2422	8.4	8.9	1197	10.6	11.0
FEMALES	2929	6.8	6.8	1990	6.6	6.6	939	7.4	7.1
14. AGE									
00-04 YEARS	206	3.9	3.7	93	2.8	2.5	113	6.0	5.8
05-14 YEARS	36	0.3	0.3	18	0.2	0.3	18	0.4	0.4
15-24 YEARS	170	1.0	1.0	107	0.9	0.9	63	1.2	1.1
25-34 YEARS	180	1.2	1.4	86	0.8	1.0	94	2.2	2.6
35-44 YEARS	280	2.7	2.9	146	1.9	2.1	134	5.4	5.8
45-54 YEARS	490	6.1	7.0	298	4.9	5.7	192	10.0	11.0
55-64 YEARS	1116	15.5	16.4	731	13.6	15.0	385	21.3	20.4
65 AND OVER	4070	51.1	52.4	2933	50.4	53.1	1137	53.1	50.5
15. PLACE OF DEATH									
HOSPITAL	4133	63.1	62.4	2778	63.0	62.7	1355	63.4	61.7
OTHER INSTITUTION	1186	18.1	18.5	839	19.0	19.3	347	16.2	16.8
HOME OR NON-INSTITUTION	1229	18.8	19.2	795	18.0	18.1	434	20.3	21.5
16. OCCURRENCE									
TOTAL	7815	15.7	15.9	5304	14.2	14.4	2511	20.4	20.4
OTHER EVENTS									
17. MARRIAGES	6510	7.8	7.7						
18. DIVORCES AND ANNULMENTS	4269	5.1	5.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

H.S.A. V - CARDINAL

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	911477	15.3	15.2	584932	13.0	13.1	326545	22.5	22.0
MALES	449753	49.3	49.9	291366	49.8	50.6	158387	48.5	48.7
FEMALES	461724	50.7	50.1	293566	50.2	49.4	168158	51.5	51.3
2. NATURAL INCREASE	7632	8.4	9.4	3428	5.9	6.8	4204	12.9	14.3
LIVE BIRTHS									
3. TOTAL	14805	16.2	17.4	8120	13.9	14.8	6685	20.5	22.4
MALES	7591	8.3	8.9	4177	7.1	7.7	3414	10.5	11.4
FEMALES	7214	7.9	8.5	3943	6.7	7.2	3271	10.0	11.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	13988	94.5	97.2	7821	96.3	98.0	6167	92.3	96.1
PHYSICIAN NOT IN HOSPITAL	39	0.3	0.5	16	0.2	0.3	23	0.3	0.7
#CERTIFIED NURSE MIDWIFE	730	4.9	1.8	262	3.2	1.2	468	7.0	2.5
PERMITTED MIDWIFE	0	0.0	0.4	0	0.0	0.3	0	0.0	0.5
5. PREMATURE BIRTHS	1161	7.8	8.1	444	5.5	5.7	717	10.7	11.0
6. OUT OF WEDLOCK	3285	22.2	20.6	573	7.1	6.2	2712	40.6	38.7
7. OCCURRENCE									
TOTAL	14286	16.9	17.2	7763	13.5	14.1	6523	24.1	24.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	288	19.2	21.7	120	14.7	16.5	168	24.8	28.3
9. FETAL DEATHS	165	11.0	11.3	65	7.9	7.7	100	14.7	15.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	162	98.2	97.5	64	98.5	98.5	98	98.0	96.9
PHYSICIAN NOT IN HOSPITAL	3	1.8	1.5	1	1.5	1.2	2	2.0	1.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.0	0	0.0	0.4
OUT OF WEDLOCK	53	32.1	32.1	5	7.7	8.3	48	48.0	46.5
10. NEONATAL (UNDER 28 DAYS)	123	8.3	10.5	55	6.8	8.9	68	10.2	12.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	85	5.8	5.5	44	5.5	3.9	41	6.2	7.6
12. INFANT DEATHS (UNDER 1 YEAR)	208	14.0	16.0	99	12.2	12.7	109	16.3	20.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	7173	7.9	8.1	4692	8.0	8.0	2481	7.6	8.2
MALES	4161	9.3	9.4	2701	9.3	9.2	1460	9.2	9.7
FEMALES	3012	6.5	6.8	1991	6.8	6.9	1021	6.1	6.7
14. AGE									
00-04 YEARS	250	3.5	4.3	119	2.9	3.3	131	4.2	5.8
05-14 YEARS	52	0.3	0.4	30	0.3	0.4	22	0.3	0.5
15-24 YEARS	206	1.1	1.2	132	1.2	1.1	74	1.0	1.3
25-34 YEARS	226	1.5	1.6	115	1.2	1.2	111	2.0	2.4
35-44 YEARS	295	2.8	3.2	147	2.0	2.4	148	4.7	5.2
45-54 YEARS	629	7.4	8.1	378	6.2	6.9	251	10.3	11.1
55-64 YEARS	1275	16.2	17.4	836	14.8	15.9	439	19.7	21.1
65 AND OVER	4240	49.9	52.4	2935	49.1	52.7	1305	51.8	51.6
15. PLACE OF DEATH									
HOSPITAL	5055	70.5	71.0	3316	70.7	71.0	1739	70.1	70.9
OTHER INSTITUTION	1079	15.0	15.8	732	15.6	16.0	347	14.0	15.2
HOME OR NON-INSTITUTION	1039	14.5	13.2	644	13.7	12.9	395	15.9	13.8
16. OCCURRENCE									
TOTAL	6848	13.8	13.9	4440	11.9	12.1	2408	19.5	19.3
OTHER EVENTS									
17. MARRIAGES	5220	5.7	5.5						
18. DIVORCES AND ANNULMENTS	4228	4.6	4.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

H.S.A. VI - EASTERN CAROLINA

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	1048957	17.6	17.9	671792	14.9	15.2	377165	26.0	26.7
MALES	517581	49.3	49.5	336644	50.1	50.4	180937	48.0	47.7
FEMALES	531376	50.7	50.5	335148	49.9	49.6	196228	52.0	52.3
2. NATURAL INCREASE	8156	7.8	8.3	4233	6.3	6.6	3923	10.4	11.3
LIVE BIRTHS									
3. TOTAL	17262	16.5	16.9	9939	14.8	15.0	7323	19.4	20.5
MALES	8816	8.4	8.7	5076	7.6	7.7	3740	9.9	10.4
FEMALES	8446	8.1	8.3	4863	7.2	7.3	3583	9.5	10.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	16649	96.4	97.3	9631	96.9	98.2	7018	95.8	96.1
PHYSICIAN NOT IN HOSPITAL	90	0.5	1.2	34	0.3	0.7	56	0.8	1.8
#CERTIFIED NURSE MIDWIFE	429	2.5	0.9	237	2.4	0.8	192	2.6	1.0
PERMITTED MIDWIFE	36	0.2	0.5	5	0.1	0.1	31	0.4	0.9
5. PREMATURE BIRTHS	1393	8.1	8.4	555	5.6	5.8	838	11.4	11.8
6. OUT OF WEDLOCK	3773	21.9	21.3	479	4.8	4.3	3294	45.0	43.9
7. OCCURRENCE									
TOTAL	16862	20.0	20.1	9748	17.0	17.0	7114	26.2	26.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	349	20.0	22.7	146	14.6	16.7	203	27.3	30.7
9. FETAL DEATHS	180	10.3	11.5	73	7.3	8.2	107	14.4	15.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	174	96.7	96.5	71	97.3	97.8	103	96.3	95.7
PHYSICIAN NOT IN HOSPITAL	4	2.2	2.7	0	0.0	1.2	4	3.7	3.7
#CERTIFIED NURSE MIDWIFE	1	0.6	0.2	1	1.4	0.5	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	67	37.2	30.4	10	13.7	7.5	57	53.3	46.1
10. NEONATAL (UNDER 28 DAYS)	169	9.8	11.3	73	7.3	8.6	96	13.1	15.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	84	4.9	5.3	33	3.3	3.4	51	7.1	7.9
12. INFANT DEATHS (UNDER 1 YEAR)	253	14.7	16.6	106	10.7	12.0	147	20.1	22.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	9106	8.7	8.7	5706	8.5	8.4	3400	9.0	9.2
MALES	5105	9.9	10.0	3150	9.4	9.4	1955	10.8	11.2
FEMALES	4001	7.5	7.4	2556	7.6	7.4	1445	7.[illegible]	7.3
14. AGE									
00-04 YEARS	295	3.7	4.4	126	2.8	3.2	169	4.9	6.0
05-14 YEARS	53	0.3	0.4	26	0.3	0.4	27	0.4	0.4
15-24 YEARS	226	1.0	1.1	154	1.1	1.0	72	0.8	1.1
25-34 YEARS	250	1.5	1.6	128	1.2	1.1	122	2.1	2.5
35-44 YEARS	355	3.1	3.4	170	2.1	2.3	185	5.4	6.0
45-54 YEARS	755	7.6	8.1	399	5.8	5.6	356	11.7	11.4
55-64 YEARS	1595	16.6	17.6	933	14.1	15.6	662	22.3	22.0
65 AND OVER	5577	52.3	52.1	3770	52.2	52.7	1807	52.4	50.9
15. PLACE OF DEATH									
HOSPITAL	6302	69.2	69.3	3970	69.6	69.9	2332	68.6	68.2
OTHER INSTITUTION	1283	14.1	15.2	855	15.0	15.6	428	12.6	14.5
HOME OR NON-INSTITUTION	1521	16.7	15.5	881	15.4	14.5	640	18.8	17.3
16. OCCURRENCE									
TOTAL	8487	17.1	17.2	5327	14.3	14.4	3160	25.6	25.6
OTHER EVENTS									
17. MARRIAGES	11193	10.7	10.5						
18. DIVORCES AND ANNULMENTS	4519	4.3	4.0						

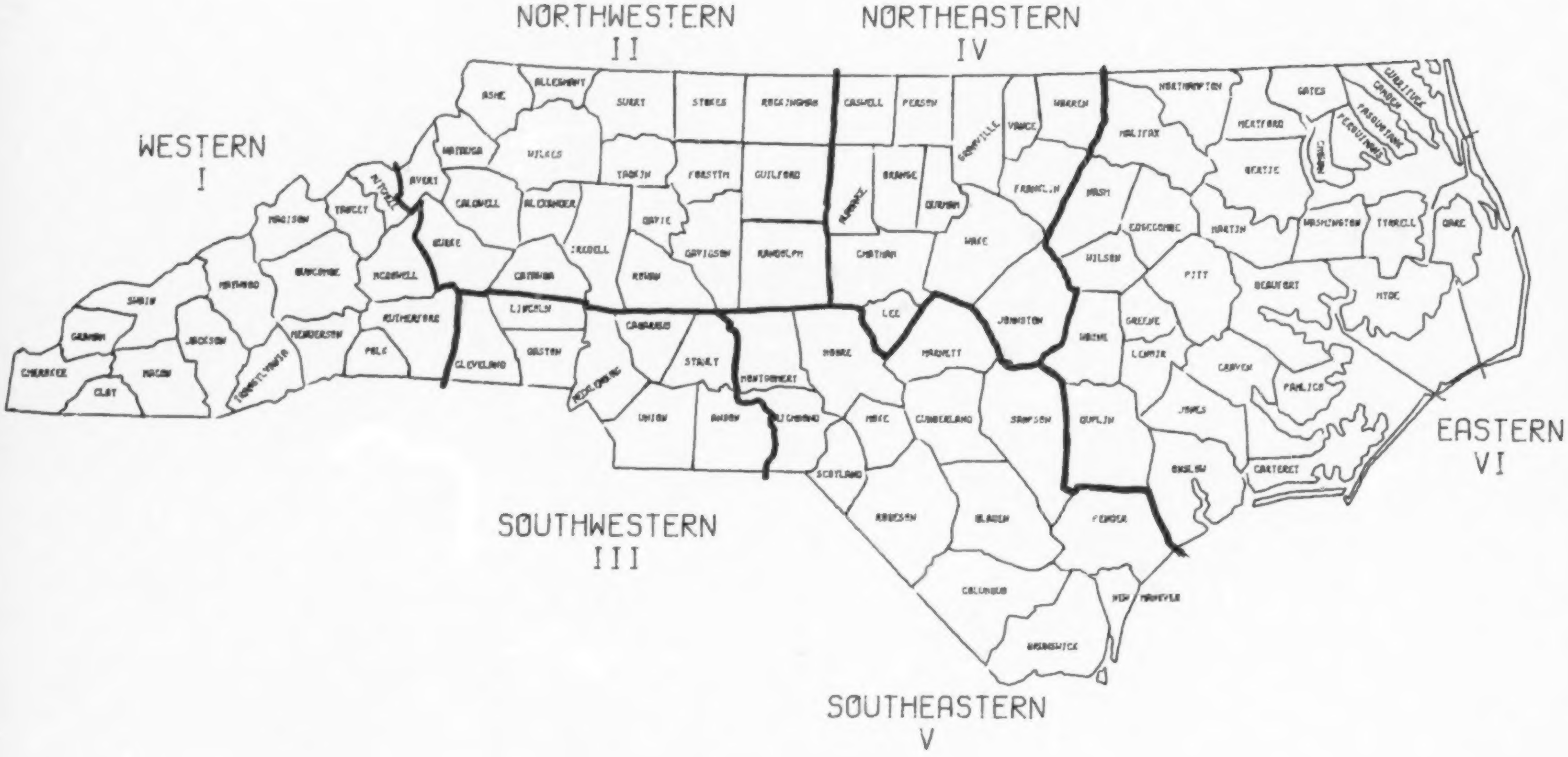
* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

Perinatal Care Regions

REGION TABLES

NORTH CAROLINA PERINATAL CARE REGIONS


NORTHWESTERN
II
NORTHEASTERN
IV
WESTERN
I
SOUTHWESTERN
III
SOUTHEASTERN
V
EASTERN
VI
ASHE
ALLEGHANY
SURRY
STOKES
ROCKINGHAM
CASWELL
PERSON
GRANVILLE
VANCE
WARREN
NORTHAMPTON
GATES
CURRITUCK
CAMDEN
PASQUOTANK
PERQUIMANS
CHOWAN
HERTFORD
HALIFAX
BERTIE
WATAUGA
WILKES
YADKIN
FORSYTH
GUILFORD
ALAMANCE
ORANGE
DURHAM
FRANKLIN
NASH
EDGECOMBE
MARTIN
WASHINGTON
TYRRELL
DARE
MITCHELL
AVERY
CALDWELL
ALEXANDER
DAVIE
MADISON
YANCEY
BURKE
IREDELL
DAVIDSON
RANDOLPH
CHATHAM
WAKE
WILSON
PITT
BEAUFORT
HYDE
HAYWOOD
BUNCOMBE
MCDOWELL
CATAWBA
ROWAN
LEE
JOHNSTON
SWAIN
LINCOLN
CABARRUS
RUTHERFORD
HENDERSON
JACKSON
GRAHAM
STANLY
MOORE
HARNETT
WAYNE
GREENE
LENOIR
CRAVEN
PAMLICO
CHEROKEE
CLAY
MACON
TRANSYLVANIA
POLK
CLEVELAND
GASTON
MECKLENBURG
MONTGOMERY
UNION
ANSON
RICHMOND
HOKE
CUMBERLAND
SAMPSON
DUPLIN
JONES
ONSLOW
CARTERET
SCOTLAND
ROBESON
BLADEN
PENDER
COLUMBUS
NEW HANOVER
BRUNSWICK

SELECTED VITAL STATISTICS FOR 1977-1981

P.C. REGION I - WESTERN

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	535261	9.0	9.0	497649	11.0	11.0	37612	2.6	2.6
MALES	257541	48.1	47.8	239609	48.1	47.8	17932	47.7	48.2
FEMALES	277720	51.9	52.2	258040	51.9	52.2	19680	52.3	51.8
2. NATURAL INCREASE	1281	2.4	3.0	1013	2.0	2.6	268	7.1	8.3
LIVE BIRTHS									
3. TOTAL	6457	12.1	12.6	5807	11.7	12.1	650	17.3	19.0
MALES	3379	6.3	6.5	3040	6.1	6.3	339	9.0	9.9
FEMALES	3078	5.8	6.1	2767	5.6	5.8	311	8.3	9.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	6316	97.8	98.9	5669	97.6	98.8	647	99.5	99.6
PHYSICIAN NOT IN HOSPITAL	51	0.8	0.6	50	0.9	0.6	1	0.2	0.3
#CERTIFIED NURSE MIDWIFE	39	0.6	0.1	39	0.7	0.1	0	0.0	0.0
PERMITTED MIDWIFE	11	0.2	0.1	11	0.2	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	470	7.3	7.3	385	6.6	6.8	85	13.1	11.8
6. OUT OF WEDLOCK	773	12.0	10.8	454	7.8	7.1	319	49.1	43.7
7. OCCURRENCE									
TOTAL	6164	7.3	7.3	5518	9.6	9.6	646	2.4	2.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	117	17.9	19.3	98	16.7	18.0	19	28.8	30.4
9. FETAL DEATHS	69	10.6	10.8	59	10.1	10.5	10	15.2	14.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	66	95.7	98.0	58	98.3	99.0	8	80.0	91.7
PHYSICIAN NOT IN HOSPITAL	2	2.9	1.4	1	1.7	0.7	1	10.0	6.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	17	24.6	18.4	11	18.6	13.1	6	60.0	52.1
10. NEONATAL (UNDER 28 DAYS)	48	7.4	8.5	39	6.7	7.6	9	13.8	16.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	23	3.6	4.5	18	3.1	4.3	5	7.8	6.1
12. INFANT DEATHS (UNDER 1 YEAR)	71	11.0	12.9	57	9.8	11.9	14	21.5	22.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	5176	9.7	9.6	4794	9.6	9.5	382	10.2	10.7
MALES	2879	11.2	11.3	2680	11.2	11.3	199	11.1	12.4
FEMALES	2297	8.3	8.0	2114	8.2	7.9	183	9.3	9.1
14. AGE									
00-04 YEARS	80	2.4	3.0	65	2.2	2.7	15	4.8	5.7
05-14 YEARS	24	0.3	0.3	24	0.3	0.3	0	0.0	0.2
15-24 YEARS	88	1.0	1.2	80	1.0	1.2	8	1.1	1.6
25-34 YEARS	106	1.3	1.3	87	1.2	1.2	19	3.3	3.0
35-44 YEARS	166	2.5	2.6	154	2.5	2.4	12	3.2	5.0
45-54 YEARS	327	5.8	6.0	293	5.5	5.6	34	11.0	12.3
55-64 YEARS	763	13.2	13.6	691	12.6	13.1	72	23.2	23.3
65 AND OVER	3622	46.3	46.8	3400	46.0	46.6	222	52.4	50.1
15. PLACE OF DEATH									
HOSPITAL	3277	63.3	62.7	3020	63.0	62.7	257	67.3	62.6
OTHER INSTITUTION	1040	20.1	20.7	975	20.3	20.6	65	17.0	22.4
HOME OR NON-INSTITUTION	859	16.6	16.5	799	16.7	16.7	60	15.7	14.9
16. OCCURRENCE									
TOTAL	5302	10.7	10.5	4888	13.1	12.9	414	3.4	3.4
OTHER EVENTS									
17. MARRIAGES	4648	8.7	8.6						
18. DIVORCES AND ANNULMENTS	2511	4.7	4.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

P.C. REGION II - NORTHWESTERN

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	1602856	26.9	26.8	1352476	30.0	29.8	250380	17.2	17.0
MALES	771908	48.2	47.7	654485	48.4	48.0	117423	46.9	46.2
FEMALES	830948	51.8	52.3	697991	51.6	52.0	132957	53.1	53.8
2. NATURAL INCREASE	7253	4.5	5.1	5219	3.9	4.3	2034	8.1	9.1
LIVE BIRTHS									
3. TOTAL	20136	12.6	13.2	16039	11.9	12.4	4097	16.4	18.1
MALES	10230	6.4	6.8	8157	6.0	6.3	2073	8.3	9.2
FEMALES	9906	6.2	6.5	7882	5.8	6.0	2024	8.1	8.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	20002	99.3	99.5	15938	99.4	99.5	4064	99.2	99.4
PHYSICIAN NOT IN HOSPITAL	14	0.1	0.1	6	0.0	0.1	8	0.2	0.3
#CERTIFIED NURSE MIDWIFE	52	0.3	0.1	51	0.3	0.1	1	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	1503	7.5	7.6	1013	6.3	6.4	490	12.0	12.1
6. OUT OF WEDLOCK	3199	15.9	15.1	1158	7.2	6.5	2041	49.8	48.3
7. OCCURRENCE									
TOTAL	20149	23.9	24.0	16018	27.9	28.0	4131	15.2	15.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	329	16.2	19.0	240	14.8	16.7	89	21.4	27.9
9. FETAL DEATHS	185	9.1	10.3	129	8.0	8.8	56	13.5	16.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	182	98.4	98.7	128	99.2	99.0	54	96.4	97.9
PHYSICIAN NOT IN HOSPITAL	3	1.6	1.2	1	0.8	1.0	2	3.6	1.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	48	25.9	24.4	14	10.9	9.4	34	60.7	55.6
10. NEONATAL (UNDER 28 DAYS)	144	7.2	8.8	111	6.9	8.0	33	8.1	12.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	61	3.1	4.1	43	2.7	3.4	18	4.4	6.6
12. INFANT DEATHS (UNDER 1 YEAR)	205	10.2	12.9	154	9.6	11.4	51	12.4	18.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	12883	8.0	8.2	10820	8.0	8.0	2063	8.2	9.0
MALES	7119	9.2	9.7	5990	9.2	9.5	1129	9.6	10.8
FEMALES	5764	6.9	6.8	4830	6.9	6.7	934	7.0	7.4
14. AGE									
00-04 YEARS	261	2.6	3.0	198	2.4	2.6	63	3.1	4.7
05-14 YEARS	69	0.3	0.3	57	0.3	0.3	12	0.3	0.3
15-24 YEARS	311	1.1	1.2	266	1.1	1.2	45	0.8	1.0
25-34 YEARS	340	1.3	1.3	245	1.1	1.1	95	2.3	2.4
35-44 YEARS	479	2.3	2.6	345	1.9	2.1	134	5.0	6.1
45-54 YEARS	993	5.7	6.3	771	5.0	5.6	222	10.8	11.8
55-64 YEARS	2144	13.7	14.3	1761	12.7	13.2	383	21.3	22.6
65 AND OVER	8286	47.6	49.0	7177	46.9	48.2	1109	53.1	54.4
15. PLACE OF DEATH									
HOSPITAL	8989	69.8	67.3	7494	69.3	67.0	1495	72.5	68.8
OTHER INSTITUTION	1948	15.1	16.7	1686	15.6	16.9	262	12.7	15.4
HOME OR NON-INSTITUTION	1946	15.1	16.0	1640	15.2	16.1	306	14.8	15.8
16. OCCURRENCE									
TOTAL	13007	26.2	26.1	10877	29.1	29.0	2130	17.3	17.5
OTHER EVENTS									
17. MARRIAGES	13787	8.6	8.6						
18. DIVORCES AND ANNULMENTS	8204	5.1	5.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

P.C. REGION III - SOUTHWESTERN

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	936369	15.7	15.7	733537	16.3	16.3	202832	14.0	13.7
MALES	449996	48.1	47.9	355262	48.4	48.2	94734	46.7	46.6
FEMALES	486373	51.9	52.1	378275	51.6	51.8	108098	53.3	53.4
2. NATURAL INCREASE	5762	6.2	6.4	3328	4.5	4.9	2434	12.0	12.2
LIVE BIRTHS									
3. TOTAL	13218	14.1	14.4	9130	12.4	12.7	4088	20.2	21.0
MALES	6760	7.2	7.3	4631	6.3	6.5	2129	10.5	10.5
FEMALES	6458	6.9	7.1	4499	6.1	6.2	1959	9.7	10.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	13047	98.7	99.3	9015	98.7	99.4	4032	98.6	99.1
PHYSICIAN NOT IN HOSPITAL	19	0.1	0.2	6	0.1	0.1	13	0.3	0.5
#CERTIFIED NURSE MIDWIFE	115	0.9	0.3	81	0.9	0.3	34	0.8	0.3
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	1065	8.1	8.0	560	6.1	6.0	505	12.4	12.5
6. OUT OF WEDLOCK	2743	20.8	19.8	629	6.9	6.1	2114	51.7	51.2
7. OCCURRENCE									
TOTAL	14407	17.1	16.7	10147	17.7	17.6	4260	15.7	14.9
FETAL & INFANT MORTALITTY									
8. PERINATAL DEATHS	281	21.0	22.4	160	17.3	17.8	121	29.1	32.9
9. FETAL DEATHS	160	12.0	11.0	94	10.2	9.2	66	15.9	15.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	156	97.5	97.5	90	95.7	97.8	66	100.0	97.0
PHYSICIAN NOT IN HOSPITAL	1	0.6	1.3	1	1.1	0.7	0	0.0	2.0
#CERTIFIED NURSE MIDWIFE	2	1.2	0.3	2	2.1	0.5	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.3
OUT OF WEDLOCK	48	30.0	30.7	8	8.5	9.6	40	60.6	59.5
10. NEONATAL (UNDER 28 DAYS)	121	9.2	11.5	66	7.2	8.7	55	13.5	17.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	58	4.4	4.5	36	4.0	3.6	22	5.5	6.8
12. INFANT DEATHS (UNDER 1 YEAR)	179	13.5	16.0	102	11.2	12.2	77	18.8	24.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	7456	8.0	8.0	5802	7.9	7.8	1654	8.2	8.7
MALES	4075	9.1	9.3	3147	8.9	8.9	928	9.8	10.6
FEMALES	3381	7.0	6.8	2655	7.0	6.7	726	6.7	7.1
14. AGE									
00-04 YEARS	211	3.3	3.6	119	2.6	2.7	92	5.2	6.1
05-14 YEARS	49	0.3	0.3	35	0.3	0.3	14	0.3	0.4
15-24 YEARS	176	1.1	1.3	138	1.1	1.3	38	0.9	1.2
25-34 YEARS	215	1.3	1.5	128	1.0	1.1	87	2.4	2.9
35-44 YEARS	294	2.5	2.7	191	2.0	2.0	103	4.7	6.0
45-54 YEARS	637	6.5	6.7	445	5.4	5.6	192	12.5	12.8
55-64 YEARS	1287	14.7	15.4	975	13.2	13.8	312	23.3	23.8
65 AND OVER	4587	49.3	50.1	3771	48.3	49.2	816	54.6	55.0
15. PLACE OF DEATH									
HOSPITAL	5418	72.7	72.6	4182	72.1	72.0	1236	74.7	74.7
OTHER INSTITUTION	977	13.1	13.6	793	13.7	14.4	184	11.1	10.6
HOME OR NON-INSTITUTION	1061	14.2	13.8	827	14.3	13.5	234	14.1	14.7
16. OCCURRENCE									
TOTAL	7551	15.2	15.0	5932	15.9	15.6	1619	13.1	13.1
OTHER EVENTS									
17. MARRIAGES	5759	6.2	5.9						
18. DIVORCES AND ANNULMENTS	5274	5.6	5.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

P.C. REGION IV - NOHTHEASTERN

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	951186	16.0	15.9	681746	15.1	15.0	269440	18.6	[illegible]
MALES	458122	48.2	48.2	331068	48.6	48.7	127054	47.2	47.1
FEMALES	493064	51.8	51.8	350678	51.4	51.3	142386	52.8	52.9
2. NATURAL INCREASE	4598	4.8	5.2	2596	3.8	3.9	2002	7.4	8.6
LIVE BIRTHS									
3. TOTAL	12265	12.9	13.4	7877	11.6	11.8	4388	16.3	17.5
MALES	6220	6.5	6.8	4002	5.9	6.1	2218	8.2	8.8
FEMALES	6045	6.4	6.5	3875	5.7	5.7	2170	8.1	8.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	11960	97.5	98.6	7615	96.7	98.3	4345	99.0	99.1
PHYSICIAN NOT IN HOSPITAL	33	0.3	0.2	19	0.2	0.2	14	0.3	0.3
#CERTIFIED NURSE MIDWIFE	237	1.9	0.7	218	2.8	1.0	19	0.4	0.2
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.2	0	0.0	0.2
5. PREMATURE BIRTHS	1033	8.4	8.5	445	5.6	5.9	588	13.4	12.8
6. OUT OF WEDLOCK	2555	20.8	19.7	409	5.2	4.7	2146	48.9	45.6
7. OCCURRENCE									
TOTAL	12840	15.2	15.0	8217	14.3	13.9	4623	17.0	17.2
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	244	19.7	21.5	108	13.6	16.2	136	30.6	30.6
9. FETAL DEATHS	107	8.6	10.8	46	5.8	8.1	61	13.7	15.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	103	96.3	98.3	46	100.0	99.4	57	93.4	97.4
PHYSICIAN NOT IN HOSPITAL	1	0.9	0.8	0	0.0	0.3	1	1.6	1.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.0	0	0.0	0.3
OUT OF WEDLOCK	33	30.8	29.4	5	10.9	8.6	28	45.9	48.1
10. NEONATAL (UNDER 28 DAYS)	137	11.2	10.8	62	7.9	8.2	75	17.1	15.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	55	4.5	4.6	29	3.7	3.2	26	6.0	7.1
12. INFANT DEATHS (UNDER 1 YEAR)	192	15.7	15.4	91	11.6	11.3	101	23.0	22.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	7667	8.1	8.2	5281	7.7	7.9	2386	8.9	8.9
MALES	4276	9.3	9.6	2924	8.8	9.1	1352	10.6	11.0
FEMALES	3391	6.9	6.9	2357	6.7	6.8	1034	7.3	7.0
14. AGE									
00-04 YEARS	232	3.9	3.6	108	2.8	2.5	124	6.0	5.7
05-14 YEARS	41	0.3	0.3	20	0.2	0.3	21	0.4	0.4
15-24 YEARS	201	1.0	1.0	127	1.0	0.9	74	1.3	1.2
25-34 YEARS	210	1.2	1.4	102	0.8	1.0	108	2.3	2.6
35-44 YEARS	315	2.7	2.9	167	1.9	2.1	148	5.2	5.7
45-54 YEARS	591	6.3	6.9	379	5.3	5.8	212	9.7	10.7
55-64 YEARS	1306	15.3	16.0	871	13.5	14.6	435	21.1	20.2
65 AND OVER	4771	50.9	52.0	3507	50.2	52.6	1264	52.6	50.6
15. PLACE OF DEATH									
HOSPITAL	4857	63.3	62.4	3350	63.4	63.0	1507	63.2	61.0
OTHER INSTITUTION	1316	17.2	17.6	932	17.6	18.1	386	16.2	16.7
HOME OR NON-INSTITUTION	1492	19.5	20.0	999	18.9	19.0	493	20.7	22.3
16. OCCURRENCE									
TOTAL	8656	17.4	17.6	5980	16.0	16.2	2676	21.7	21.7
OTHER EVENTS									
17. MARRIAGES	7599	8.0	7.8						
18. DIVORCES AND ANNULMENTS	4944	5.2	5.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

P.C. REGION V - SOUTHEASTERN

ITEM #	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	885876	14.9	14.8	571361	12.7	12.8	314515	21.7	21.2
MALES	437752	49.4	50.0	284915	49.9	50.6	152837	48.6	48.8
FEMALES	448124	50.6	50.0	286446	50.1	49.4	161678	51.4	51.2
2. NATURAL INCREASE	7490	8.5	9.5	3418	6.0	6.9	4072	12.9	14.4
LIVE BIRTHS									
3. TOTAL	14414	16.3	17.5	7964	13.9	14.9	6450	20.5	22.5
MALES	7373	8.3	9.0	4087	7.2	7.7	3286	10.4	11.4
FEMALES	7041	7.9	8.5	3877	6.8	7.2	3164	10.1	11.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	13609	94.4	97.2	7669	96.3	98.1	5940	92.1	96.1
PHYSICIAN NOT IN HOSPITAL	30	0.2	0.4	13	0.2	0.3	17	0.3	0.6
#CERTIFIED NURSE MIDWIFE	730	5.1	1.8	262	3.3	1.2	468	7.3	2.6
PERMITTED MIDWIFE	0	0.0	0.4	0	0.0	0.3	0	0.0	0.5
5. PREMATURE BIRTHS	1124	7.8	8.0	434	5.4	5.7	690	10.7	11.0
6. OUT OF WEDLOCK	3167	22.0	20.4	567	7.1	6.3	2600	40.3	38.5
7. OCCURRENCE									
TOTAL	14041	16.6	17.0	7696	13.4	13.9	6345	23.4	23.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	283	19.4	21.5	119	14.8	16.4	164	25.0	28.0
9. FETAL DEATHS	163	11.2	11.1	65	8.1	7.6	98	15.0	15.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	160	98.2	97.7	64	98.5	98.4	96	98.0	97.3
PHYSICIAN NOT IN HOSPITAL	3	1.8	1.4	1	1.5	1.3	2	2.0	1.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.2
OUT OF WEDLOCK	52	31.9	31.8	5	7.7	8.2	47	48.0	46.4
10. NEONATAL (UNDER 28 DAYS)	120	8.3	10.5	54	6.8	8.9	66	10.2	12.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	83	5.8	5.4	44	5.6	3.9	39	6.1	7.4
12. INFANT DEATHS (UNDER 1 YEAR)	203	14.1	15.9	98	12.3	12.7	105	16.3	19.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	6924	7.8	8.0	4546	8.0	8.0	2378	7.6	8.1
MALES	4030	9.2	9.3	2629	9.2	9.1	1401	9.2	9.6
FEMALES	2894	6.5	6.7	1917	6.7	6.8	977	6.0	6.7
14. AGE									
00-04 YEARS	242	3.4	4.3	117	2.9	3.3	125	4.1	5.7
05-14 YEARS	51	0.3	0.4	30	0.4	0.4	21	0.3	0.5
15-24 YEARS	202	1.1	1.2	128	1.2	1.1	74	1.1	1.3
25-34 YEARS	221	1.5	1.6	114	1.2	1.2	107	2.0	2.4
35-44 YEARS	286	2.8	3.2	145	2.0	2.4	141	4.7	5.2
45-54 YEARS	618	7.5	8.2	373	6.3	7.0	245	10.5	11.2
55-64 YEARS	1235	16.2	17.6	812	14.8	16.0	423	19.8	21.3
65 AND OVER	4069	49.9	52.6	2827	49.1	53.0	1242	51.8	51.7
15. PLACE OF DEATH									
HOSPITAL	4837	69.9	70.7	3190	70.2	70.8	1647	69.3	70.7
OTHER INSTITUTION	1058	15.3	15.9	721	15.9	16.2	337	14.2	15.4
HOME OR NON-INSTITUTION	1029	14.9	13.3	635	14.0	13.0	394	16.6	13.9
16. OCCURRENCE									
TOTAL	6665	13.4	13.6	4334	11.6	11.8	2331	18.9	18.8
OTHER EVENTS									
17. MARRIAGES	5123	5.8	5.6						
18. DIVORCES AND ANNULMENTS	4141	4.7	4.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

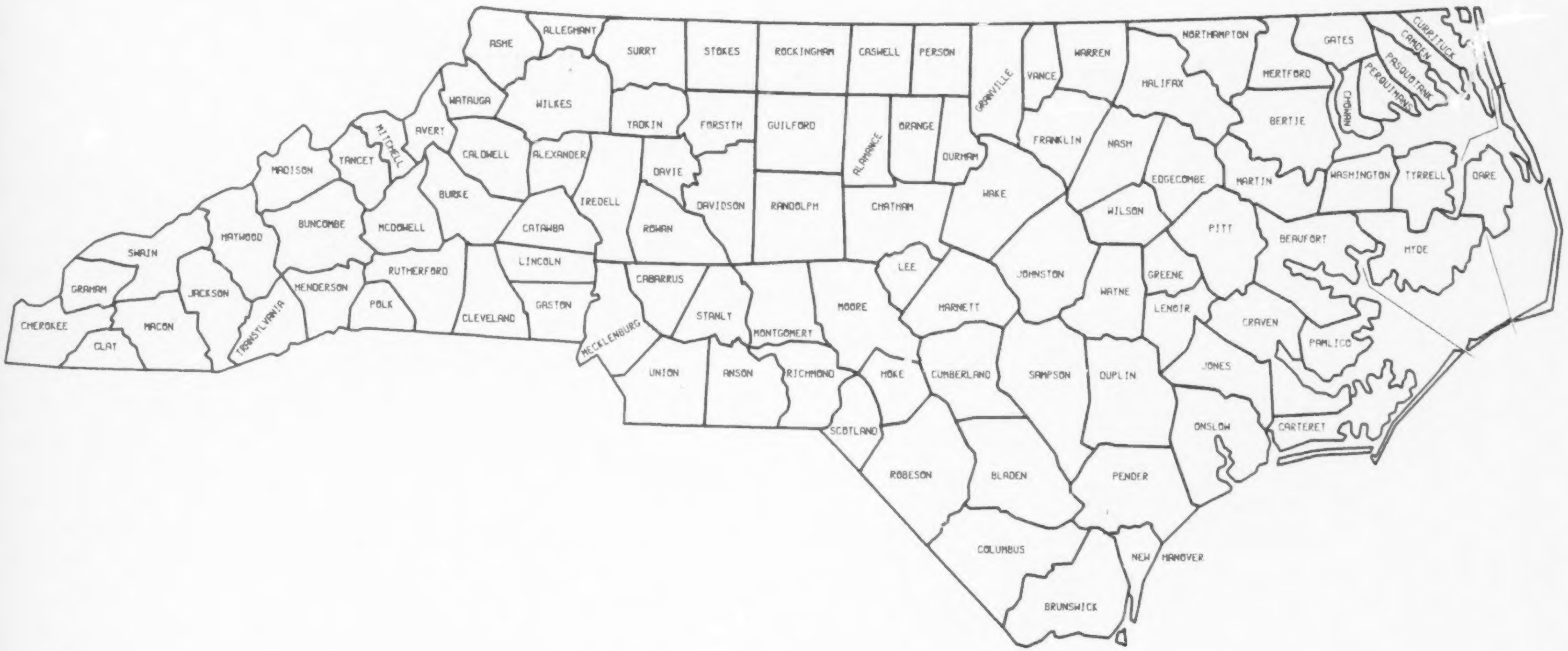
P.C. REGION VI - EASTERN

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	1048957	17.6	17.9	671792	14.9	15.2	377165	26.0	26.7
MALES	517581	49.3	49.5	336644	50.1	50.4	180937	48.0	47.7
FEMALES	531376	50.7	50.5	335148	49.9	49.6	196228	52.0	52.3
2. NATURAL INCREASE	8156	7.8	8.3	4233	6.3	6.6	3923	10.4	11.3
LIVE BIRTHS									
3. TOTAL	17262	16.5	16.9	9939	14.8	15.0	7323	19.4	20.5
MALES	8816	8.4	8.7	5076	7.6	7.7	3740	9.9	10.4
FEMALES	8446	8.1	8.3	4863	7.2	7.3	3583	9.5	10.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	16649	96.4	97.3	9631	96.9	98.2	7018	95.8	96.1
PHYSICIAN NOT IN HOSPITAL	90	0.[illegible]	1.2	34	0.3	0.7	56	0.8	1.8
#CERTIFIED NURSE MIDWIFE	429	2.5	0.9	237	2.4	0.8	192	2.6	1.0
PERMITTED MIDWIFE	36	0.2	0.5	5	0.1	0.1	31	0.4	0.9
5. PREMATURE BIRTHS	1393	8.1	8.4	555	5.6	5.8	838	11.4	11.8
6. OUT OF WEDLOCK	3773	21.9	21.3	479	4.8	4.3	3294	45.0	43.9
7. OCCURRENCE									
TOTAL	16862	20.0	20.1	9748	17.0	17.0	7114	26.2	26.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	349	20.0	22.7	146	14.6	16.7	203	27.3	30.7
9. FETAL DEATHS	180	10.3	11.5	73	7.3	8.2	107	14.4	15.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	174	96.7	96.5	71	97.3	97.8	103	96.3	95.7
PHYSICIAN NOT IN HOSPITAL	4	2.2	2.7	0	0.0	1.2	4	3.7	3.7
#CERTIFIED NURSE MIDWIFE	1	0.6	0.2	1	1.4	0.5	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	67	37.2	30.4	10	13.7	7.5	57	53.3	46.1
10. NEONATAL (UNDER 28 DAYS)	169	9.8	11.3	73	7.3	8.6	96	13.1	15.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	84	4.9	5.3	33	3.3	3.4	51	7.1	7.9
12. INFANT DEATHS (UNDER 1 YEAR)	253	14.7	16.6	106	10.7	12.0	147	20.1	22.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	9106	8.7	8.7	5706	8.5	8.4	3400	9.0	9.2
MALES	5105	9.9	10.0	3150	9.4	9.4	1955	10.8	11.2
FEMALES	4001	7.5	7.4	2556	7.6	7.4	1445	7.4	7.3
14. AGE									
00-04 YEARS	295	3.7	4.4	126	2.8	3.2	169	4.9	6.0
05-14 YEARS	53	0.3	0.4	26	0.3	0.4	27	0.4	0.4
15-24 YEARS	226	1.0	1.1	154	1.1	1.0	72	0.8	1.1
25-34 YEARS	250	1.5	1.6	128	1.2	1.1	122	2.1	2.5
35-44 YEARS	355	3.1	3.4	170	2.1	2.3	185	5.4	6.0
45-54 YEARS	755	7.6	8.1	399	5.8	6.6	356	11.7	11.4
55-64 YEARS	1595	16.6	17.6	933	14.1	15.6	662	22.3	22.0
65 AND OVER	5577	52.3	52.1	3770	52.2	52.7	1807	52.4	50.9
15. PLACE OF DEATH									
HOSPITAL	6302	69.2	69.3	3970	69.6	69.9	2332	68.6	68.2
OTHER INSTITUTION	1283	14.1	15.2	855	15.0	15.6	428	12.6	14.5
HOME OR NON-INSTITUTION	1521	16.7	15.5	881	15.4	14.5	640	18.8	17.3
16. OCCURRENCE									
TOTAL	8487	17.1	17.2	5327	14.3	14.4	3160	25.6	25.6
OTHER EVENTS									
17. MARRIAGES	11193	10.7	10.5						
18. DIVORCES AND ANNULMENTS	4519	4.3	4.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

COUNTY
TABLES

NORTH CAROLINA


ASHE
ALLEGHANY
SURRY
STOKES
ROCKINGHAM
CASWELL
PERSON
GRANVILLE
VANCE
WARREN
NORTHAMPTON
GATES
CURRITUCK
CAMDEN
PASQUOTANK
PERQUIMANS
CHOWAN
HERTFORD
HALIFAX
WATAUGA
WILKES
YADKIN
FORSYTH
GUILFORD
ALAMANCE
ORANGE
DURHAM
FRANKLIN
NASH
BERTIE
AVERY
MITCHELL
YANCEY
MADISON
CALDWELL
ALEXANDER
DAVIE
IREDELL
BURKE
WAKE
EDGECOMBE
MARTIN
WASHINGTON
TYRRELL
DARE
BUNCOMBE
MCDOWELL
CATAWBA
DAVIDSON
RANDOLPH
CHATHAM
WILSON
PITT
BEAUFORT
HYDE
HAYWOOD
SWAIN
ROWAN
LINCOLN
RUTHERFORD
LEE
JOHNSTON
GREENE
GRAHAM
JACKSON
HENDERSON
CABARRUS
STANLY
MOORE
HARNETT
WAYNE
LENOIR
CRAVEN
PAMLICO
CHEROKEE
MACON
CLAY
TRANSYLVANIA
POLK
CLEVELAND
GASTON
MECKLENBURG
MONTGOMERY
UNION
ANSON
RICHMOND
HOKE
CUMBERLAND
SAMPSON
DUPLIN
JONES
ONSLOW
CARTERET
SCOTLAND
ROBESON
BLADEN
PENDER
COLUMBUS
NEW HANOVER
BRUNSWICK

SELECTED VITAL STATISTICS FOR 1977-1981

ALAMANCE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	99668	1.7	1.7	79821	1.8	1.9	19847	1.4	1.4
MALES	47360	47.5	47.6	38059	47.7	47.7	9301	46.9	47.0
FEMALES	52308	52.5	52.4	41762	52.3	52.3	10546	53.1	53.0
2. NATURAL INCREASE	168	1.7	2.4	95	1.2	1.4	73	3.7	6.8
LIVE BIRTHS									
3. TOTAL	1117	11.2	11.3	859	10.8	10.3	258	13.0	15.5
MALES	567	5.7	5.7	437	5.5	5.3	130	6.6	7.7
FEMALES	550	5.5	5.6	422	5.3	5.0	128	6.4	7.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1102	98.7	99.6	844	98.3	99.5	258	100.0	99.9
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.1	1	0.1	0.0	0	0.0	0.1
#CERTIFIED NURSE MIDWIFE	12	1.1	0.2	12	1.4	0.3	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	97	8.7	8.3	63	7.3	6.7	34	13.2	12.9
6. OUT OF WEDLOCK	192	17.2	16.4	60	7.0	6.0	132	51.2	46.7
7. OCCURRENCE									
TOTAL	980	1.2	1.2	795	1.4	1.4	185	0.7	0.7
TO RESIDENTS	836	85.3	84.1	676	85.0	83.2	160	86.5	87.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	17	15.1	20.0	9	10.4	17.6	8	30.7	26.9
9. FETAL DEATHS	6	5.3	10.3	3	3.5	9.5	3	11.5	12.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	83.3	96.6	3	100.0	100.0	2	66.7	88.9
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.7	0	0.0	0.0	0	0.0	5.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	22.4	0	0.0	7.5	0	0.0	55.6
10. NEONATAL (UNDER 28 DAYS)	11	9.8	9.8	6	7.0	8.2	5	19.4	14.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	7	6.3	4.3	6	7.0	3.4	1	4.0	7.1
12. INFANT DEATHS (UNDER 1 YEAR)	18	16.1	14.1	12	14.0	11.5	6	23.3	21.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	949	9.5	8.9	764	9.6	8.9	185	9.3	8.7
MALES	557	11.8	10.5	441	11.6	10.3	116	12.5	11.2
FEMALES	392	7.5	7.4	323	7.7	7.6	69	6.5	6.5
14. AGE									
00-04 YEARS	22	4.0	2.9	13	3.2	2.3	9	6.7	5.0
05-14 YEARS	4	0.3	0.3	2	0.2	0.3	2	0.5	0.4
15-24 YEARS	24	1.4	1.3	17	1.3	1.2	7	1.8	1.6
25-34 YEARS	24	1.6	1.2	14	1.2	0.9	10	3.1	2.3
35-44 YEARS	29	2.3	2.5	19	1.9	1.9	10	4.4	5.2
45-54 YEARS	86	7.5	6.4	73	7.6	6.2	13	7.3	7.5
55-64 YEARS	161	14.3	14.0	125	13.1	13.1	36	20.9	19.3
65 AND OVER	599	49.9	50.3	501	49.2	49.8	98	53.6	53.4
15. PLACE OF DEATH									
HOSPITAL	630	66.4	63.3	513	67.1	65.0	117	63.2	55.8
OTHER INSTITUTION	100	10.5	12.2	75	9.8	11.5	25	13.5	15.4
HOME OR NON-INSTITUTION	219	23.1	24.5	176	23.0	23.5	43	23.2	28.8
16. OCCURRENCE									
TOTAL	781	1.6	1.5	641	1.7	1.7	140	1.1	1.0
TO RESIDENTS	717	91.8	90.4	584	91.1	90.1	133	95.0	91.8
OTHER EVENTS									
17. MARRIAGES	933	9.4	8.8						
18. DIVORCES AND ANNULMENTS	613	6.2	5.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ALEXANDER COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	25543	0.4	0.4	23779	0.5	0.5	1764	0.1	0.1
MALES	12686	49.7	49.1	11789	49.6	49.1	897	50.9	49.8
FEMALES	12857	50.3	50.9	11990	50.4	50.9	867	49.1	50.2
2. NATURAL INCREASE	110	4.3	6.7	97	4.1	6.3	13	7.4	11.3
LIVE BIRTHS									
3. TOTAL	315	12.3	14.3	282	11.9	13.9	33	18.7	19.5
MALES	164	6.4	7.4	146	6.1	7.1	18	10.2	10.5
FEMALES	151	5.9	6.9	136	5.7	6.8	15	8.5	9.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	313	99.4	99.6	281	99.6	99.6	32	97.0	99.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	23	7.3	6.4	19	6.7	5.9	4	12.1	11.5
6. OUT OF WEDLOCK	40	12.7	9.6	26	9.2	6.2	14	42.4	39.7
7. OCCURRENCE									
TOTAL	81	0.1	0.1	66	0.1	0.1	15	0.1	0.1
TO RESIDENTS	78	96.3	91.6	63	95.5	92.8	15	100.0	88.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	12	37.3	22.8	10	34.6	18.9	2	60.6	56.8
9. FETAL DEATHS	7	21.7	11.7	7	24.2	11.7	0	0.0	11.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	7	100.0	95.0	7	100.0	100.0	0		50.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	5.0	0	0.0	0.0	0		50.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	2	28.6	30.0	2	28.6	22.2	0		100.0
10. NEONATAL (UNDER 28 DAYS)	5	15.9	11.2	3	10.6	7.2	2	60.6	46.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	6.5	4.8	0	0.0	3.3	2	64.5	18.1
12. INFANT DEATHS (UNDER 1 YEAR)	7	22.2	15.9	3	10.6	10.5	4	121.2	63.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	205	8.0	7.6	185	7.8	7.6	20	11.3	8.2
MALES	120	9.5	9.1	108	9.2	9.0	12	13.4	9.4
FEMALES	85	6.6	6.2	77	6.4	6.2	8	9.2	6.9
14. AGE									
00-04 YEARS	8	4.4	3.8	4	2.4	2.8	4	25.5	14.1
05-14 YEARS	1	0.2	0.2	0	0.0	0.2	1	3.0	0.6
15-24 YEARS	4	0.9	1.5	4	1.0	1.6	0	0.0	0.0
25-34 YEARS	6	1.4	1.6	5	1.3	1.6	1	3.3	2.1
35-44 YEARS	9	2.5	2.2	8	2.4	2.1	1	4.4	3.4
45-54 YEARS	17	6.2	[illegible]	15	5.8	5.6	2	14.7	15.1
55-64 YEARS	38	17.6	[illegible]	34	16.9	13.5	4	29.2	21.9
65 AND OVER	122	52.2	50.0	115	52.7	50.8	7	45.5	38.5
15. PLACE OF DEATH									
HOSPITAL	185	90.2	88.0	165	89.2	87.3	20	100.0	95.9
OTHER INSTITUTION	19	9.3	10.9	19	10.3	11.4	0	0.0	4.1
HOME OR NON-INSTITUTION	1	0.5	1.1	1	0.5	1.2	0	0.0	0.0
16. OCCURRENCE									
TOTAL	102	0.2	0.2	88	0.2	0.2	14	0.1	0.1
TO RESIDENTS	95	93.1	94.4	82	93.2	94.9	13	52.9	90.9
OTHER EVENTS									
17. MARRIAGES	199	7.8	7.7						
18. DIVORCES AND ANNULMENTS	76	3.0	3.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ALLEGHANY COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	9724	0.2	0.2	9506	0.2	0.2	218	0.0	0.0
MALES	4706	48.4	47.3	4606	48.5	47.5	100	45.9	42.5
FEMALES	5018	51.6	52.7	4900	51.5	52.5	118	54.1	57.5
2. NATURAL INCREASE	13	1.3	2.0	14	1.5	2.1	-1	-4.6	0.9
LIVE BIRTHS									
3. TOTAL	118	12.1	12.8	116	12.2	12.8	2	9.2	12.3
MALES	69	7.1	6.6	69	7.3	6.7	0	0.0	3.8
FEMALES	49	5.0	6.2	47	4.9	6.1	2	9.2	8.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	118	100.0	100.0	116	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	11	9.3	6.3	11	9.5	6.1	0	0.0	15.4
6. OUT OF WEDLOCK	9	7.6	7.7	9	7.8	7.7	0	0.0	7.7
7. OCCURRENCE									
TOTAL	93	0.1	0.1	92	0.2	0.2	1	0.0	0.0
TO RESIDENTS	57	61.3	64.9	57	62.0	66.2	0	0.0	25.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	0	0.0	10.2	0	0.0	8.7	0	0.0	76.9
9. FETAL DEATHS	0	0.0	5.1	0	0.0	5.2	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		100.0	0		100.0	0		
PHYSICIAN NOT IN HOSPITAL	0		0.0	0		0.0	0		
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		
PERMITTED MIDWIFE	0		0.0	0		0.0	0		
OUT OF WEDLOCK	0		0.0	0		0.0	0		
10. NEONATAL (UNDER 28 DAYS)	0	0.0	5.1	0	0.0	3.5	0	0.0	76.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	16.9	6.8	2	17.2	7.0	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	2	16.9	11.9	2	17.2	10.5	0	0.0	76.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	105	10.8	10.7	102	10.7	10.7	3	13.8	11.3
MALES	67	14.2	13.3	65	14.1	13.4	2	20.0	11.1
FEMALES	38	7.6	8.4	37	7.6	8.3	1	8.5	11.5
14. AGE									
00-04 YEARS	2	3.3	2.5	2	3.4	2.2	0	0.0	16.7
05-14 YEARS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
15-24 YEARS	1	0.7	1.6	1	0.7	1.5	0	0.0	8.9
25-34 YEARS	3	2.1	1.6	3	2.2	1.6	0	0.0	0.0
35-44 YEARS	2	1.7	2.6	2	1.7	2.6	0	0.0	0.0
45-54 YEARS	3	2.7	5.2	3	2.8	5.2	0	0.0	6.8
55-64 YEARS	16	14.6	13.5	15	13.9	13.6	1	55.6	9.5
65 AND OVER	78	53.0	48.0	76	53.1	48.7	2	48.8	28.8
15. PLACE OF DEATH									
HOSPITAL	82	78.1	71.2	79	77.5	70.7	3	100.0	91.7
OTHER INSTITUTION	4	3.8	9.3	4	3.9	9.6	0	0.0	0.0
HOME OR NON-INSTITUTION	19	18.1	19.5	19	18.6	19.8	0	0.0	8.3
16. OCCURRENCE									
TOTAL	102	0.2	0.2	100	0.3	0.3	2	0.0	0.0
TO RESIDENTS	81	79.4	71.9	79	79.0	72.2	2	100.0	60.0
OTHER EVENTS									
17. MARRIAGES	321	33.0	44.4						
18. DIVORCES AND ANNULMENTS	38	3.9	4.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ANSON COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	25601	0.4	0.4	13571	0.3	0.3	12030	0.8	0.8
MALES	12001	46.9	47.1	6451	47.5	47.6	5550	46.1	46.5
FEMALES	13600	53.1	52.9	7120	52.5	52.4	6480	53.9	53.5
2. NATURAL INCREASE	142	5.5	5.8	10	0.7	0.3	132	11.0	12.3
LIVE BIRTHS									
3. TOTAL	391	15.3	15.8	156	11.5	11.2	235	19.5	21.4
MALES	218	8.5	8.0	90	6.6	5.8	128	10.6	10.5
FEMALES	173	6.8	7.9	66	4.9	5.4	107	8.9	10.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	379	96.9	95.8	152	97.4	96.5	227	96.6	95.3
PHYSICIAN NOT IN HOSPITAL	9	2.3	3.6	3	1.9	2.8	6	2.6	4.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.2	0	0.0	0.5	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.2
5. PREMATURE BIRTHS	37	9.5	9.8	10	6.4	5.4	27	11.5	12.5
6. OUT OF WEDLOCK	118	30.2	28.5	6	3.8	2.6	112	47.7	44.5
7. OCCURRENCE									
TOTAL	245	0.3	0.3	67	0.1	0.1	178	0.7	0.6
TO RESIDENTS	233	95.1	95.5	60	89.6	89.9	173	97.2	97.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	12.7	29.3	1	6.4	19.9	4	16.9	35.0
9. FETAL DEATHS	2	5.1	19.2	0	0.0	12.0	2	8.4	23.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	92.1	0		100.0	2	100.0	89.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	2.6	0		0.0	0	0.0	3.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	2.6	0		0.0	0	0.0	3.4
OUT OF WEDLOCK	1	50.0	39.5	0		11.1	1	50.0	48.3
10. NEONATAL (UNDER 28 DAYS)	3	7.7	10.3	1	6.4	8.1	2	8.5	11.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	5.2	8.8	0	0.0	2.7	2	8.6	12.6
12. INFANT DEATHS (UNDER 1 YEAR)	5	12.8	19.0	1	6.4	10.8	4	17.0	24.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	249	9.7	10.0	146	10.8	10.9	103	8.6	9.0
MALES	131	10.9	11.7	72	11.2	12.2	59	10.6	11.1
FEMALES	118	8.7	8.5	74	10.4	9.7	44	6.8	7.2
14. AGE									
00-04 YEARS	8	4.0	4.9	2	2.4	2.4	6	5.1	6.4
05-14 YEARS	1	0.2	0.4	0	0.0	0.1	1	0.4	0.7
15-24 YEARS	4	0.9	1.1	4	2.0	1.5	0	0.0	0.8
25-34 YEARS	5	1.3	2.0	1	0.5	1.1	4	2.1	3.2
35-44 YEARS	9	3.4	3.6	2	1.2	2.5	7	7.0	5.4
45-54 YEARS	11	4.7	6.3	5	3.4	4.9	6	6.8	8.4
55-64 YEARS	40	15.3	14.2	24	14.4	13.2	16	17.0	15.9
65 AND OVER	171	50.6	46.7	108	50.5	45.9	63	50.6	48.3
15. PLACE OF DEATH									
HOSPITAL	218	87.6	78.1	126	86.3	79.1	92	89.3	76.8
OTHER INSTITUTION	21	8.4	11.7	11	7.5	11.9	10	9.7	11.6
HOME OR NON-INSTITUTION	10	4.0	10.2	9	6.2	9.1	1	1.0	11.6
16. OCCURRENCE									
TOTAL	183	0.4	0.4	106	0.3	0.3	77	0.6	0.5
TO RESIDENTS	162	88.5	91.2	94	88.7	89.6	68	88.3	93.9
OTHER EVENTS									
17. MARRIAGES	97	3.8	3.6						
18. DIVORCES AND ANNULMENTS	87	3.4	3.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ASHE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	22730	0.4	0.4	22494	0.5	0.5	236	0.0	0.0
MALES	11086	48.8	48.6	10973	48.8	48.6	113	47.9	49.7
FEMALES	11644	51.2	51.4	11521	51.2	51.4	123	52.1	50.3
2. NATURAL INCREASE	88	3.9	4.1	88	3.9	4.1	0	0.0	3.1
LIVE BIRTHS									
3. TOTAL	301	13.2	13.7	296	13.2	13.8	5	21.2	9.9
MALES	154	6.8	7.2	151	6.7	7.2	3	12.7	5.4
FEMALES	147	6.5	6.6	145	6.4	6.6	2	8.5	4.6
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	299	99.3	99.5	294	99.3	99.5	5	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	18	6.0	6.0	17	5.7	6.0	1	20.0	7.7
6. OUT OF WEDLOCK	28	9.3	7.0	25	8.4	6.6	3	60.0	53.8
7. OCCURRENCE									
TOTAL	157	0.2	0.2	155	0.3	0.3	2	0.0	0.0
TO RESIDENTS	141	89.8	89.4	139	89.7	89.3	2	100.0	100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	11	35.6	33.3	11	36.2	33.6	0	0.0	0.0
9. FETAL DEATHS	8	25.9	20.7	8	26.3	20.8	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	100.0	96.8	8	100.0	96.8	0		
PHYSICIAN NOT IN HOSPITAL	0	0.0	3.2	0	0.0	3.2	0		
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
OUT OF WEDLOCK	0	0.0	9.7	0	0.0	9.7	0		
10. NEONATAL (UNDER 28 DAYS)	3	10.0	12.9	3	10.1	13.0	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	4.1	0	0.0	4.2	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	3	10.0	17.0	3	10.1	17.2	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	213	9.4	9.7	208	9.2	9.7	5	21.2	6.9
MALES	114	10.3	11.8	110	10.0	11.8	4	35.4	9.2
FEMALES	99	8.5	7.7	98	8.5	7.7	1	8.1	4.6
14. AGE									
00-04 YEARS	3	2.1	4.2	3	2.1	4.3	0	0.0	0.0
05-14 YEARS	2	0.6	0.3	2	0.6	0.3	0	0.0	0.0
15-24 YEARS	3	0.9	1.5	3	0.9	1.5	0	0.0	0.0
25-34 YEARS	4	1.2	1.4	4	1.2	1.4	0	0.0	0.0
35-44 YEARS	6	2.1	2.1	6	2.1	2.1	0	0.0	6.9
45-54 YEARS	9	3.6	6.1	9	3.7	6.1	0	0.0	6.2
55-64 YEARS	23	9.9	11.9	23	10.0	11.9	0	0.0	19.8
65 AND OVER	163	48.9	47.5	158	47.8	47.6	5	172.4	36.2
15. PLACE OF DEATH									
HOSPITAL	149	70.0	70.7	146	70.2	70.8	3	60.0	66.7
OTHER INSTITUTION	25	11.7	8.0	25	12.0	8.1	0	0.0	0.0
HOME OR NON-INSTITUTION	39	18.3	21.2	37	17.8	21.1	2	40.0	33.3
16. OCCURRENCE									
TOTAL	177	0.4	0.3	172	0.5	0.4	5	0.0	0.0
TO RESIDENTS	160	90.4	93.1	155	90.1	93.0	5	100.0	100.0
OTHER EVENTS									
17. MARRIAGES	213	9.4	8.6						
18. DIVORCES AND ANNULMENTS	65	2.9	3.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

AVERY COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	14786	0.2	0.2	14578	0.3	0.3	208	0.0	0.0
MALES	7398	50.0	50.2	7252	49.7	50.1	146	70.2	56.7
FEMALES	7388	50.0	49.8	7326	50.3	49.9	62	29.8	43.3
2. NATURAL INCREASE	71	4.8	5.7	72	4.9	5.8	-1	-4.8	-4.6
LIVE BIRTHS									
3. TOTAL	189	12.8	14.2	188	12.9	14.3	1	4.8	7.6
MALES	106	7.2	7.1	105	7.2	7.1	1	4.8	6.1
FEMALES	83	5.6	7.1	83	5.7	7.2	0	0.0	1.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	186	98.4	99.2	185	98.4	99.2	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.3	0	0.0	0.3	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	20	10.6	7.8	20	10.6	7.9	0	0.0	0.0
6. OUT OF WEDLOCK	30	15.9	8.1	30	16.0	8.2	0	0.0	0.0
7. OCCURRENCE									
TOTAL	161	0.2	0.2	160	0.3	0.3	1	0.0	0.0
TO RESIDENTS	114	70.8	70.3	113	70.6	70.2	1	100.0	83.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	4	21.2	16.7	4	21.3	16.8	0	0.0	0.0
9. FETAL DEATHS	0	0.0	7.9	0	0.0	7.9	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		100.0	0		100.0	0		
PHYSICIAN NOT IN HOSPITAL	0		0.0	0		0.0	0		
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		
PERMITTED MIDWIFE	0		0.0	0		0.0	0		
OUT OF WEDLOCK	0		0.0	0		0.0	0		
10. NEONATAL (UNDER 28 DAYS)	4	21.2	8.9	4	21.3	8.9	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	6.0	0	0.0	6.0	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	4	21.2	14.8	4	21.3	14.9	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	118	8.0	8.5	116	8.0	8.5	2	9.6	12.2
MALES	68	9.2	9.6	66	9.1	9.7	2	13.7	8.1
FEMALES	50	6.8	7.4	50	6.8	7.4	0	0.0	17.7
14. AGE									
00-04 YEARS	4	4.3	3.3	4	4.3	3.3	0	0.0	0.0
05-14 YEARS	0	0.0	0.2	0	0.0	0.2	0	0.0	0.0
15-24 YEARS	4	1.4	1.4	4	1.4	1.4	0	0.0	0.0
25-34 YEARS	0	0.0	1.0	0	0.0	1.0	0	0.0	0.0
35-44 YEARS	2	1.1	2.6	2	1.1	2.7	0	0.0	0.0
45-54 YEARS	12	8.4	6.4	12	8.5	6.5	0	0.0	0.0
55-64 YEARS	12	8.4	13.4	11	7.8	13.3	1	76.9	20.4
65 AND OVER	84	50.0	50.0	83	49.7	49.5	1	83.3	111.1
15. PLACE OF DEATH									
HOSPITAL	88	74.6	74.1	87	75.0	73.9	1	50.0	87.5
OTHER INSTITUTION	15	12.7	12.0	15	12.9	12.2	0	0.0	0.0
HOME OR NON-INSTITUTION	15	12.7	13.9	14	12.1	13.9	1	50.0	12.5
16. OCCURRENCE									
TOTAL	131	0.3	0.2	126	0.3	0.3	5	0.0	0.0
TO RESIDENTS	85	64.9	67.7	83	65.9	67.9	2	40.0	58.3
OTHER EVENTS									
17. MARRIAGES	142	9.6	10.0						
18. DIVORCES AND ANNULMENTS	80	5.4	3.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BEAUFORT COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	41385	0.7	0.7	28223	0.6	0.6	13162	0.9	1.0
MALES	19665	47.5	47.1	13565	48.1	47.4	6100	46.3	46.5
FEMALES	21720	52.5	52.9	14658	51.9	52.6	7062	53.7	53.5
2. NATURAL INCREASE	182	4.4	4.5	80	2.8	2.4	102	7.7	8.6
LIVE BIRTHS									
3. TOTAL	594	14.4	15.7	369	13.1	13.9	225	17.1	19.2
MALES	322	7.8	8.0	203	7.2	7.2	119	9.0	9.6
FEMALES	272	6.6	7.7	166	5.9	6.7	106	8.1	9.6
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	589	99.2	99.7	366	99.2	99.8	223	99.1	99.5
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.2	0	0.0	0.0	1	0.4	0.4
#CERTIFIED NURSE MIDWIFE	1	0.2	0.0	1	0.3	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	53	8.9	9.0	23	6.2	5.8	30	13.3	13.7
6. OUT OF WEDLOCK	110	18.5	20.5	14	3.8	3.4	96	42.7	44.6
7. OCCURRENCE									
TOTAL	637	0.8	0.8	394	0.7	0.7	243	0.9	1.0
TO RESIDENTS	456	71.6	75.8	270	68.5	71.5	186	76.5	82.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	11	18.3	24.9	6	16.1	18.5	5	21.7	33.8
9. FETAL DEATHS	8	13.3	13.7	3	8.1	11.2	5	21.7	17.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	100.0	100.0	3	100.0	100.0	5	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	37.5	27.3	0	0.0	4.8	3	60.0	47.8
10. NEONATAL (UNDER 28 DAYS)	3	5.1	11.4	3	8.1	7.5	0	0.0	16.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	3.4	5.1	1	2.7	3.8	1	4.4	7.0
12. INFANT DEATHS (UNDER 1 YEAR)	5	8.4	16.4	4	10.8	11.3	1	4.4	23.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	412	10.0	11.2	289	10.2	11.5	123	9.3	10.6
MALES	230	11.7	13.4	160	11.8	13.7	70	11.5	12.7
FEMALES	182	8.4	9.2	129	8.8	9.5	53	7.5	8.8
14. AGE									
00-04 YEARS	7	2.2	4.4	5	2.7	3.1	2	1.5	6.2
05-14 YEARS	0	0.0	0.4	0	0.0	0.4	0	0.0	0.3
15-24 YEARS	4	0.6	1.7	3	0.7	1.9	1	0.4	1.3
25-34 YEARS	12	1.9	1.9	5	1.1	1.5	7	3.6	2.8
35-44 YEARS	10	2.1	3.1	6	1.7	2.5	4	3.5	5.1
45-54 YEARS	28	6.6	8.5	15	4.9	7.4	13	11.4	11.2
55-64 YEARS	63	14.8	19.0	42	13.6	17.2	21	18.2	23.1
65 AND OVER	288	53.6	53.9	213	54.8	56.3	75	50.2	48.4
15. PLACE OF DEATH									
HOSPITAL	314	76.2	76.4	218	75.4	76.8	96	78.0	75.8
OTHER INSTITUTION	37	9.0	10.7	30	10.4	11.4	7	5.7	9.1
HOME OR NON-INSTITUTION	61	14.8	12.9	41	14.2	11.8	20	16.3	15.1
16. OCCURRENCE									
TOTAL	417	0.8	0.9	294	0.8	0.9	123	1.0	1.2
TO RESIDENTS	337	80.8	80.2	237	80.6	79.8	100	81.3	83.2
OTHER EVENTS									
17. MARRIAGES	431	10.4	10.0						
18. DIVORCES AND ANNULMENTS	153	3.7	4.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BERTIE COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	21221	0.4	0.4	8540	0.2	0.2	12681	0.9	0.9
MALES	10015	47.2	46.4	4097	48.0	46.6	5918	46.7	46.3
FEMALES	11206	52.8	53.6	4443	52.0	53.4	6763	53.3	53.7
2. NATURAL INCREASE	108	5.1	4.3	-22	-2.6	-1.9	130	10.3	9.1
LIVE BIRTHS									
3. TOTAL	317	14.9	15.4	75	8.8	10.4	242	19.1	19.2
MALES	164	7.7	7.7	41	4.8	5.5	123	9.7	9.4
FEMALES	153	7.2	7.7	34	4.0	4.9	119	9.4	9.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	311	98.1	95.2	75	100.0	98.1	236	97.5	94.0
PHYSICIAN NOT IN HOSPITAL	6	1.9	4.2	0	0.0	1.5	6	2.5	5.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.3	0	0.0	0.4	0	0.0	0.3
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.2
5. PREMATURE BIRTHS	33	10.4	10.1	2	2.7	5.0	31	12.8	12.2
6. OUT OF WEDLOCK	108	34.1	31.3	4	5.3	3.6	104	43.0	42.8
7. OCCURRENCE									
TOTAL	58	0.1	0.0	8	0.0	0.0	50	0.2	0.1
TO RESIDENTS	58	100.0	97.2	8	100.0	91.4	50	100.0	98.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	24.9	23.7	1	13.2	12.5	7	28.6	28.4
9. FETAL DEATHS	4	12.5	11.6	1	13.2	10.4	3	12.2	12.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	75.0	94.7	1	100.0	100.0	2	66.7	92.9
PHYSICIAN NOT IN HOSPITAL	1	25.0	5.3	0	0.0	0.0	1	33.3	7.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	75.0	36.8	0	0.0	0.0	3	100.0	50.0
10. NEONATAL (UNDER 28 DAYS)	4	12.6	12.3	0	0.0	2.1	4	16.5	16.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	9.6	8.7	1	13.3	8.4	2	8.4	8.8
12. INFANT DEATHS (UNDER 1 YEAR)	7	22.1	20.9	1	13.3	10.5	6	24.8	25.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	209	9.8	11.1	97	11.4	12.3	112	8.8	10.1
MALES	124	12.4	13.6	57	13.9	14.1	67	11.3	13.2
FEMALES	85	7.6	8.9	40	9.0	10.8	45	6.7	7.5
14. AGE									
00-04 YEARS	11	6.9	5.4	2	4.0	2.8	9	8.2	6.6
05-14 YEARS	1	0.3	0.6	0	0.0	0.7	1	0.4	0.5
15-24 YEARS	1	0.3	1.1	0	0.0	1.3	1	0.4	0.9
25-34 YEARS	7	2.4	2.2	3	2.4	1.0	4	2.4	3.4
35-44 YEARS	12	5.8	6.0	6	6.1	4.1	6	5.5	7.9
45-54 YEARS	14	6.5	9.7	5	5.1	8.1	9	7.7	11.1
55-64 YEARS	31	13.7	15.6	16	14.3	14.2	15	13.2	17.1
65 AND OVER	132	47.6	50.9	65	45.2	49.8	67	50.1	52.2
15. PLACE OF DEATH									
HOSPITAL	152	72.7	72.6	68	70.1	71.2	84	75.0	74.0
OTHER INSTITUTION	22	10.5	10.7	8	8.2	11.5	14	12.5	9.9
HOME OR NON-INSTITUTION	35	16.7	16.7	21	21.6	17.2	14	12.5	16.1
16. OCCURRENCE									
TOTAL	78	0.2	0.2	41	0.1	0.1	37	0.3	0.5
TO RESIDENTS	73	93.6	92.2	38	92.7	90.1	35	94.6	93.9
OTHER EVENTS									
17. MARRIAGES	167	7.9	7.7						
18. DIVORCES AND ANNULMENTS	58	2.7	2.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BLADEN COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	30749	0.5	0.5	18401	0.4	0.4	12348	0.9	0.9
MALES	14874	48.4	48.4	9055	49.2	48.6	5819	47.1	48.2
FEMALES	15875	51.6	51.6	9346	50.8	51.4	6529	52.9	51.8
2. NATURAL INCREASE	117	3.8	4.9	47	2.6	2.8	70	5.7	8.2
LIVE BIRTHS									
3. TOTAL	409	13.3	14.4	212	11.5	12.2	197	16.0	17.9
MALES	199	6.5	7.3	103	5.6	6.3	96	7.8	9.0
FEMALES	210	6.8	7.1	109	5.9	5.9	101	8.2	8.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	311	76.0	89.8	159	75.0	89.3	152	77.2	90.3
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.6	0	0.0	0.4	1	0.5	0.8
#CERTIFIED NURSE MIDWIFE	96	23.5	8.0	53	25.0	8.6	43	21.8	7.3
PERMITTED MIDWIFE	0	0.0	1.4	0	0.0	1.5	0	0.0	1.2
5. PREMATURE BIRTHS	32	7.8	9.4	10	4.7	5.5	22	11.2	13.5
6. OUT OF WEDLOCK	96	23.5	23.5	16	7.5	5.5	80	40.6	42.7
7. OCCURRENCE									
TOTAL	4	0.0	0.0	0	0.0	0.0	4	0.0	0.0
TO RESIDENTS	3	75.0	75.0	0		75.0	3	75.0	75.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	14.5	22.6	1	4.7	14.3	5	25.0	31.3
9. FETAL DEATHS	4	9.7	12.9	1	4.7	9.0	3	15.0	17.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	1	100.0	100.0	3	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	75.0	28.6	0	0.0	0.0	3	100.0	44.4
10. NEONATAL (UNDER 28 DAYS)	2	4.9	9.8	0	0.0	0.0	3	100.0	44.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	7.4	6.6	1	4.7	1.8	2	10.3	11.8
12. INFANT DEATHS (UNDER 1 YEAR)	5	12.2	16.3	1	4.7	7.2	4	20.3	26.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	292	9.5	9.5	165	9.0	9.4	127	10.3	9.6
MALES	179	12.0	11.7	101	11.2	11.9	78	13.4	11.5
FEMALES	113	7.1	7.4	64	6.8	7.1	49	7.5	7.9
14. AGE									
00-04 YEARS	7	3.1	3.9	3	2.5	2.1	4	3.8	5.9
05-14 YEARS	2	0.4	0.4	1	0.4	0.4	1	0.4	0.4
15-24 YEARS	7	1.3	1.3	4	1.4	1.5	3	1.2	1.0
25-34 YEARS	6	1.2	1.9	0	0.0	0.9	6	3.2	3.6
35-44 YEARS	14	4.0	4.0	5	2.1	2.3	9	7.6	7.8
45-54 YEARS	16	5.3	6.7	6	2.9	5.2	10	10.3	10.0
55-64 YEARS	54	17.5	17.7	30	15.1	15.9	24	21.8	21.2
65 AND OVER	186	54.2	51.3	116	53.0	53.4	70	56.2	47.6
15. PLACE OF DEATH									
HOSPITAL	214	73.3	74.3	125	75.8	77.5	89	70.1	69.5
OTHER INSTITUTION	41	14.0	14.5	22	13.3	13.7	19	15.0	15.8
HOME OR NON-INSTITUTION	37	12.7	11.2	18	10.9	8.9	19	15.0	14.7
16. OCCURRENCE									
TOTAL	216	0.4	0.5	119	0.3	0.4	97	0.8	0.7
TO RESIDENTS	181	83.8	79.7	101	84.9	79.2	80	82.5	80.4
OTHER EVENTS									
17. MARRIAGES	117	3.8	4.0						
18. DIVORCES AND ANNULMENTS	116	3.8	3.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BRUNSWICK COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	37220	0.6	0.6	28709	0.6	0.6	8511	0.6	0.6
MALES	18312	49.2	49.4	14297	49.8	50.3	4015	47.2	46.4
FEMALES	18908	50.8	50.6	14412	50.2	49.7	4496	52.8	53.6
2. NATURAL INCREASE	200	5.4	6.5	120	4.2	5.1	80	9.4	11.2
LIVE BIRTHS									
3. TOTAL	515	13.8	14.6	355	12.4	13.2	160	18.8	19.3
MALES	271	7.3	7.6	180	6.3	6.8	91	10.7	10.3
FEMALES	244	6.6	7.0	175	6.1	6.4	69	8.1	8.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	515	100.0	99.7	355	100.0	99.7	160	100.0	99.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	44	8.5	7.3	22	6.2	5.8	22	13.7	10.3
6. OUT OF WEDLOCK	100	19.4	18.2	32	9.0	8.1	68	42.5	39.8
7. OCCURRENCE									
TOTAL	31	0.0	0.0	18	0.0	0.0	13	0.0	0.0
TO RESIDENTS	30	96.8	94.7	17	94.4	91.6	13	100.0	100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	11	21.1	19.7	5	13.9	12.7	6	37.0	34.4
9. FETAL DEATHS	6	11.5	12.2	4	11.1	9.3	2	12.3	18.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	6	100.0	100.0	4	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	16.7	16.1	0	0.0	0.0	1	50.0	33.3
10. NEONATAL (UNDER 28 DAYS)	5	9.7	7.6	1	2.8	3.5	4	25.0	16.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	7.8	6.0	2	5.6	4.7	2	12.8	8.9
12. INFANT DEATHS (UNDER 1 YEAR)	9	17.5	13.6	3	8.5	8.2	6	37.5	25.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	315	8.5	8.1	235	8.2	8.1	80	9.4	8.1
MALES	192	10.5	9.8	145	10.1	9.9	47	11.7	9.7
FEMALES	123	6.5	6.4	90	6.2	6.3	33	7.3	6.7
14. AGE									
00-04 YEARS	9	3.4	3.0	3	1.6	2.1	6	7.9	5.0
05-14 YEARS	2	0.3	0.4	2	0.4	0.4	0	0.0	0.6
15-24 YEARS	14	2.3	1.7	12	2.7	2.0	2	1.2	0.8
25-34 YEARS	7	1.2	1.3	4	0.9	1.1	3	2.2	1.9
35-44 YEARS	14	3.1	3.3	9	2.5	3.0	5	5.9	4.7
45-54 YEARS	24	6.2	6.3	21	6.7	6.4	3	4.0	6.1
55-64 YEARS	50	12.7	16.1	38	11.6	15.5	12	18.5	19.0
65 AND OVER	195	47.7	47.0	146	44.5	46.1	49	61.2	50.1
15. PLACE OF DEATH									
HOSPITAL	219	69.5	67.4	166	70.6	67.3	53	66.2	67.6
OTHER INSTITUTION	38	12.1	14.3	28	11.9	14.2	10	12.5	14.3
HOME OR NON-INSTITUTION	58	18.4	18.4	41	17.4	18.4	17	21.2	18.2
16. OCCURRENCE									
TOTAL	205	0.4	0.4	154	0.4	0.4	51	0.4	0.3
TO RESIDENTS	172	83.9	82.4	127	82.5	81.2	45	88.2	86.7
OTHER EVENTS									
17. MARRIAGES	192	5.2	5.2						
18. DIVORCES AND ANNULMENTS	137	3.7	3.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BUNCOMBE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	161749	2.7	2.7	146643	3.3	3.3	15106	1.0	1.0
MALES	76703	47.4	47.2	69728	47.5	47.3	6975	46.2	45.7
FEMALES	85046	52.6	52.8	76915	52.5	52.7	8131	53.8	54.3
2. NATURAL INCREASE	368	2.3	2.7	317	2.2	2.4	51	3.4	6.0
LIVE BIRTHS									
3. TOTAL	1955	12.1	12.6	1726	11.8	12.1	229	15.2	18.4
MALES	1016	6.3	6.5	901	6.1	6.3	115	7.6	9.3
FEMALES	939	5.8	6.1	825	5.6	5.8	114	7.5	9.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1922	98.3	99.1	1693	98.1	99.1	229	100.0	99.4
PHYSICIAN NOT IN HOSPITAL	20	1.0	0.5	20	1.2	0.5	0	0.0	0.6
#CERTIFIED NURSE MIDWIFE	5	0.3	0.1	5	0.3	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	163	8.3	8.1	129	7.5	7.1	34	14.8	14.3
6. OUT OF WEDLOCK	261	13.4	13.7	141	8.2	8.1	120	52.4	50.3
7. OCCURRENCE									
TOTAL	2577	3.1	3.0	2326	4.1	4.0	251	0.9	1.0
TO RESIDENTS	1846	71.6	73.0	1623	69.8	71.0	223	88.8	88.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	38	19.2	18.5	32	18.3	16.9	6	25.8	29.0
9. FETAL DEATHS	28	14.1	9.7	24	13.7	9.7	4	17.2	9.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	26	92.9	95.9	23	95.8	97.6	3	75.0	84.6
PHYSICIAN NOT IN HOSPITAL	2	7.1	3.1	1	4.2	1.2	1	25.0	15.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	6	21.4	16.5	4	16.7	11.9	2	50.0	46.2
10. NEONATAL (UNDER 28 DAYS)	10	5.1	8.9	8	4.6	7.3	2	8.7	19.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	2.6	3.7	4	2.3	3.5	1	4.4	4.7
12. INFANT DEATHS (UNDER 1 YEAR)	15	7.7	12.5	12	7.0	10.8	3	13.1	23.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1587	9.8	9.9	1409	9.6	9.7	178	11.8	12.4
MALES	869	11.3	11.5	777	11.1	11.2	92	13.2	14.9
FEMALES	718	8.4	8.5	632	8.2	8.3	86	10.6	10.3
14. AGE									
00-04 YEARS	17	1.7	2.9	14	1.6	2.6	3	2.4	5.9
05-14 YEARS	6	0.3	0.3	6	0.3	0.3	0	0.0	0.3
15-24 YEARS	25	1.0	1.1	22	0.9	1.1	3	1.1	1.1
25-34 YEARS	35	1.4	1.4	26	1.1	1.3	9	3.8	2.6
35-44 YEARS	46	2.3	2.5	41	2.2	2.3	5	3.4	4.9
45-54 YEARS	108	6.2	6.4	93	5.8	5.7	15	11.6	14.8
55-64 YEARS	279	16.0	15.2	243	15.2	14.2	36	25.6	27.4
65 AND OVER	1071	47.4	47.8	964	46.8	47.7	107	53.8	49.3
15. PLACE OF DEATH									
HOSPITAL	856	53.9	54.3	752	53.4	54.2	104	58.4	54.9
OTHER INSTITUTION	447	28.2	29.6	406	28.8	29.6	41	23.0	29.2
HOME OR NON-INSTITUTION	284	17.9	16.2	251	17.8	16.2	33	18.5	15.9
16. OCCURRENCE									
TOTAL	2274	4.6	4.6	2044	5.5	5.5	230	1.9	1.9
TO RESIDENTS	1466	64.5	64.6	1294	63.3	63.8	172	74.8	71.4
OTHER EVENTS									
17. MARRIAGES	1478	9.1	9.0						
18. DIVORCES AND ANNULMENTS	892	5.5	5.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BURKE COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	73280	1.2	1.2	67654	1.5	1.4	5626	0.4	0.4
MALES	35767	48.8	48.6	32985	48.8	48.8	2782	49.4	46.7
FEMALES	37513	51.2	51.4	34669	51.2	51.2	2844	50.6	53.3
2. NATURAL INCREASE	407	5.6	5.9	380	5.6	5.7	27	4.8	7.8
LIVE BIRTHS									
3. TOTAL	880	12.0	13.3	805	11.9	13.1	75	13.3	16.4
MALES	460	6.3	7.0	419	6.2	6.9	41	7.3	7.9
FEMALES	420	5.7	6.3	386	5.7	6.2	34	6.0	8.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	876	99.5	99.7	802	99.6	99.7	74	98.7	99.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	0.1	0.0	1	0.1	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	72	8.2	7.9	63	7.8	7.5	9	12.0	12.3
6. OUT OF WEDLOCK	124	14.1	11.8	88	10.9	8.9	36	48.0	40.6
7. OCCURRENCE									
TOTAL	906	1.1	1.2	834	1.5	1.6	72	0.3	0.3
TO RESIDENTS	686	75.7	72.2	621	74.5	70.4	65	90.3	92.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	7.9	15.0	5	6.2	14.3	2	26.3	21.4
9. FETAL DEATHS	4	4.5	8.4	3	3.7	8.0	1	13.2	11.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	3	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	50.0	18.4	1	33.3	12.1	1	100.0	60.0
10. NEONATAL (UNDER 28 DAYS)	3	3.4	6.7	2	2.5	6.4	1	13.3	9.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	5.7	4.2	5	6.2	4.2	0	0.0	4.9
12. INFANT DEATHS (UNDER 1 YEAR)	8	9.1	10.9	7	8.7	10.5	1	13.3	14.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	473	6.5	7.4	425	6.3	7.3	48	8.5	8.6
MALES	280	7.8	8.8	250	7.6	8.7	30	10.8	10.6
FEMALES	193	5.1	6.1	175	5.0	6.0	18	6.3	6.9
14. AGE									
00-04 YEARS	8	1.7	2.7	7	1.7	2.6	1	2.4	3.8
05-14 YEARS	5	0.4	0.3	5	0.5	0.4	0	0.0	0.0
15-24 YEARS	14	1.1	1.0	13	1.1	1.1	1	0.8	0.6
25-34 YEARS	16	1.4	1.3	15	1.4	1.2	1	1.2	2.9
35-44 YEARS	14	1.4	2.0	12	1.3	2.0	2	3.2	2.1
45-54 YEARS	44	5.4	6.0	41	5.3	5.9	3	6.0	7.8
55-64 YEARS	79	11.0	13.7	66	9.8	13.3	13	30.3	18.7
65 AND OVER	293	39.1	47.3	266	37.9	47.5	27	55.1	45.4
15. PLACE OF DEATH									
HOSPITAL	295	62.4	65.8	262	61.6	65.7	33	68.8	66.2
OTHER INSTITUTION	84	17.8	18.2	76	17.9	17.8	8	16.7	22.4
HOME OR NON-INSTITUTION	94	19.9	16.0	87	20.5	16.4	7	14.6	11.4
16. OCCURRENCE									
TOTAL	489	1.0	1.1	440	1.2	1.4	49	0.4	0.4
TO RESIDENTS	371	75.9	72.2	335	76.1	72.0	36	73.5	73.9
OTHER EVENTS									
17. MARRIAGES	428	5.8	6.2						
18. DIVORCES AND ANNULMENTS	385	5.3	5.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CABARRUS COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	87851	1.5	1.5	75184	1.7	1.6	12667	0.9	0.9
MALES	42206	48.0	47.7	36334	48.3	47.9	5872	46.4	46.5
FEMALES	45645	52.0	52.3	38850	51.7	52.1	6795	53.6	53.5
2. NATURAL INCREASE	260	3.0	3.6	151	2.0	2.7	109	8.6	8.6
LIVE BIRTHS									
3. TOTAL	1097	12.5	13.1	865	11.5	12.1	232	18.3	18.8
MALES	552	6.3	6.6	430	5.7	6.2	122	9.6	8.8
FEMALES	545	6.2	6.5	435	5.8	5.9	110	8.7	9.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1095	99.8	99.9	863	99.8	99.9	232	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	0.1	0.0	1	0.1	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	87	7.9	6.9	56	6.5	5.7	31	13.4	11.2
6. OUT OF WEDLOCK	169	15.4	16.4	49	5.7	5.5	120	51.7	56.1
7. OCCURRENCE									
TOTAL	1256	1.5	1.5	1020	1.8	1.8	236	0.9	0.9
TO RESIDENTS	873	69.5	70.1	659	64.6	65.5	214	90.7	89.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	19	17.1	20.5	11	12.6	17.3	8	33.6	31.9
9. FETAL DEATHS	13	11.7	11.7	7	8.0	8.9	6	25.2	21.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	13	100.0	98.4	7	100.0	100.0	6	100.0	96.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	4	30.8	26.6	0	0.0	7.9	4	66.7	53.8
10. NEONATAL (UNDER 28 DAYS)	6	5.5	8.9	4	4.6	8.5	2	8.6	10.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	3.7	3.2	2	2.3	2.6	2	8.7	5.2
12. INFANT DEATHS (UNDER 1 YEAR)	10	9.1	12.0	6	6.9	11.1	4	17.2	15.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	837	9.5	9.5	714	9.5	9.3	123	9.7	10.2
MALES	475	11.3	11.2	406	11.2	10.9	69	11.8	12.7
FEMALES	362	7.9	7.9	308	7.9	7.9	54	7.9	8.0
14. AGE									
00-04 YEARS	14	2.5	3.0	9	2.0	2.7	5	4.9	4.3
05-14 YEARS	1	0.1	0.4	0	0.0	0.4	1	0.4	0.3
15-24 YEARS	16	1.1	1.4	13	1.1	1.5	3	1.1	1.2
25-34 YEARS	29	2.1	1.6	21	1.8	1.3	8	4.2	2.8
35-44 YEARS	29	2.6	2.8	23	2.3	2.3	6	4.6	6.2
45-54 YEARS	57	5.9	7.0	52	6.1	6.4	5	4.8	12.1
55-64 YEARS	139	15.0	14.7	120	14.4	13.6	19	19.8	23.8
65 AND OVER	552	52.0	51.1	476	50.6	49.4	76	62.6	64.3
15. PLACE OF DEATH									
HOSPITAL	711	84.9	82.2	597	83.6	81.9	114	92.7	83.9
OTHER INSTITUTION	70	8.4	10.5	63	8.8	10.7	7	5.7	9.3
HOME OR NON-INSTITUTION	56	6.7	7.3	54	7.6	7.4	2	1.6	6.8
16. OCCURRENCE									
TOTAL	884	1.8	1.7	771	2.1	1.9	113	0.9	1.0
TO RESIDENTS	684	77.4	78.8	577	74.8	77.1	107	94.7	89.0
OTHER EVENTS									
17. MARRIAGES	620	7.1	7.0						
18. DIVORCES AND ANNULMENTS	432	4.9	4.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CALDWELL COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	68162	1.1	1.1	64168	1.4	1.4	3994	0.3	0.3
MALES	33367	49.0	48.4	31520	49.1	48.5	1847	46.2	46.2
FEMALES	34795	51.0	51.6	32648	50.9	51.5	2147	53.8	53.8
2. NATURAL INCREASE	326	4.8	6.5	300	4.7	6.3	26	6.5	9.4
LIVE BIRTHS									
3. TOTAL	832	12.2	14.1	772	12.0	13.8	60	15.0	18.8
MALES	400	5.9	7.0	371	5.8	6.8	29	7.3	9.3
FEMALES	432	6.3	7.1	401	6.2	6.9	31	7.8	9.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	830	99.8	99.8	770	99.7	99.8	60	100.0	99.5
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.1	1	0.1	0.1	0	0.0	0.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	57	6.9	7.9	52	6.7	7.6	5	8.3	11.5
6. OUT OF WEDLOCK	110	13.2	13.4	84	10.9	10.2	26	43.3	49.2
7. OCCURRENCE									
TOTAL	491	0.6	0.6	430	0.7	0.8	61	0.2	0.3
TO RESIDENTS	466	94.9	93.1	411	95.6	93.5	55	90.2	90.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	20	23.8	24.0	18	23.1	22.8	2	32.8	37.2
9. FETAL DEATHS	8	9.5	13.6	7	9.0	12.5	1	16.4	26.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	100.0	98.4	7	100.0	98.1	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.6	0	0.0	1.9	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	12.5	22.6	0	0.0	15.4	1	100.0	60.0
10. NEONATAL (UNDER 28 DAYS)	12	14.4	10.5	11	14.2	10.4	1	16.7	10.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	2.4	4.5	2	2.6	4.9	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	14	16.8	14.9	13	16.8	15.3	1	16.7	10.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	506	7.4	7.6	472	7.4	7.5	34	8.5	9.4
MALES	290	8.7	9.2	275	8.7	9.0	15	8.1	11.3
FEMALES	216	6.2	6.1	197	6.0	6.0	19	8.8	7.7
14. AGE									
00-04 YEARS	15	3.3	3.2	14	3.3	3.2	1	2.9	3.1
05-14 YEARS	2	0.2	0.4	2	0.2	0.4	0	0.0	0.0
15-24 YEARS	17	1.4	1.4	16	1.4	1.4	1	1.3	1.1
25-34 YEARS	15	1.4	1.3	13	1.3	1.2	2	3.4	2.1
35-44 YEARS	19	2.1	2.4	19	2.2	2.2	0	0.0	7.4
45-54 YEARS	41	5.4	6.5	37	5.1	6.1	4	10.8	13.7
55-64 YEARS	93	14.7	15.5	90	15.0	15.3	3	9.0	19.3
65 AND OVER	304	46.0	49.9	281	45.0	49.2	23	63.0	62.4
15. PLACE OF DEATH									
HOSPITAL	349	69.0	69.0	325	68.9	69.2	24	70.6	67.2
OTHER INSTITUTION	66	13.0	13.1	58	12.3	12.8	8	23.5	17.5
HOME OR NON-INSTITUTION	91	18.0	17.9	89	18.9	18.1	2	5.9	15.3
16. OCCURRENCE									
TOTAL	357	0.7	0.7	324	0.9	0.8	33	0.3	0.3
TO RESIDENTS	324	90.8	88.3	299	92.3	89.7	25	75.8	76.3
OTHER EVENTS									
17. MARRIAGES	517	7.6	7.9						
18. DIVORCES AND ANNULMENTS	330	4.8	4.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CAMDEN COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	5679	0.1	0.1	3857	0.1	0.1	1822	0.1	0.1
MALES	2764	48.7	47.2	1906	49.4	47.7	858	47.1	46.4
FEMALES	2915	51.3	52.8	1951	50.6	52.3	964	52.9	53.6
2. NATURAL INCREASE	8	1.4	3.2	1	0.3	1.6	7	3.8	6.2
LIVE BIRTHS									
3. TOTAL	74	13.0	13.6	48	12.4	12.4	26	14.3	15.8
MALES	42	7.4	7.4	28	7.3	7.1	14	7.7	8.1
FEMALES	32	5.6	6.1	20	5.2	5.3	12	6.6	7.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	62	83.8	93.9	40	83.3	92.3	22	84.6	96.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	12	16.2	5.6	8	16.7	7.3	4	15.4	3.2
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	5	6.8	8.2	2	4.2	8.5	3	11.5	7.6
6. OUT OF WEDLOCK	11	14.9	17.1	1	2.1	2.6	10	38.5	38.6
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0		50.0	0			0		50.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	13.3	34.8	0	0.0	29.4	1	37.0	42.7
9. FETAL DEATHS	1	13.3	24.9	0	0.0	16.8	1	37.0	36.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	0		100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	100.0	30.0	0		0.0	1	100.0	50.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	10.2	0	0.0	12.8	0	0.0	6.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	5.2	0	0.0	0.0	0	0.0	12.7
12. INFANT DEATHS (UNDER 1 YEAR)	0	0.0	15.3	0	0.0	12.8	0	0.0	19.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	66	11.6	10.3	47	12.2	10.7	19	10.4	9.6
MALES	32	11.6	12.2	22	11.5	12.4	10	11.7	11.7
FEMALES	34	11.7	8.7	25	12.8	9.2	9	9.3	7.9
14. AGE									
00-04 YEARS	2	5.0	4.7	2	8.3	5.5	0	0.0	3.6
05-14 YEARS	3	3.3	1.2	2	3.4	1.0	1	3.2	1.5
15-24 YEARS	1	1.0	0.8	0	0.0	0.7	1	2.4	0.9
25-34 YEARS	0	0.0	0.8	0	0.0	0.8	0	0.0	0.7
35-44 YEARS	8	11.4	4.0	4	7.5	3.2	4	23.4	6.4
45-54 YEARS	6	10.0	6.9	4	9.5	5.7	2	11.2	9.7
55-64 YEARS	7	11.7	17.2	5	11.4	15.9	2	12.8	20.9
65 AND OVER	39	56.8	54.9	30	58.8	54.3	9	50.8	56.3
15. PLACE OF DEATH									
HOSPITAL	41	62.1	69.6	32	68.1	70.9	9	47.4	66.7
OTHER INSTITUTION	10	15.2	13.0	8	17.0	12.8	2	10.5	13.5
HOME OR NON-INSTITUTION	15	22.7	17.4	7	14.9	16.3	8	42.1	19.8
16. OCCURRENCE									
TOTAL	18	0.0	0.0	9	0.0	0.0	9	0.1	0.0
TO RESIDENTS	15	83.3	87.1	7	77.8	83.3	8	88.9	95.0
OTHER EVENTS									
17. MARRIAGES	26	4.6	5.8						
18. DIVORCES AND ANNULMENTS	21	3.7	1.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CARTERET COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	42901	0.7	0.7	38560	0.9	0.8	4341	0.3	0.3
MALES	21355	49.8	49.3	19234	49.9	49.5	2121	48.9	48.0
FEMALES	21546	50.2	50.7	19326	50.1	50.5	2220	51.1	52.0
2. NATURAL INCREASE	218	5.1	6.2	162	4.2	5.4	56	12.9	13.2
LIVE BIRTHS									
3. TOTAL	622	14.5	15.5	532	13.8	14.7	90	20.7	21.5
MALES	323	7.5	8.0	272	7.1	7.6	51	11.7	11.6
FEMALES	299	7.0	7.5	260	6.7	7.2	39	9.0	9.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	593	95.3	98.7	510	95.9	98.8	83	92.2	98.0
PHYSICIAN NOT IN HOSPITAL	2	0.3	0.2	2	0.4	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	26	4.2	1.0	20	3.8	0.9	6	6.7	1.3
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.4
5. PREMATURE BIRTHS	34	5.5	7.2	27	5.1	6.3	7	7.8	12.1
6. OUT OF WEDLOCK	67	10.8	11.7	31	5.8	6.3	36	40.0	42.3
7. OCCURRENCE									
TOTAL	591	0.7	0.7	464	0.8	0.8	127	0.5	0.4
TO RESIDENTS	478	80.9	80.3	399	86.0	84.1	79	62.2	65.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	13	20.7	22.9	11	20.5	22.7	2	22.0	24.0
9. FETAL DEATHS	5	8.0	8.8	4	7.5	8.9	1	11.0	8.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	80.0	96.3	3	75.0	95.7	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	20.0	3.7	1	25.0	4.3	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	14.8	0	0.0	6.7	0	0.0	50.0
10. NEONATAL (UNDER 28 DAYS)	8	12.9	14.2	7	13.2	14.0	1	11.1	15.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	1.6	2.7	1	1.9	2.4	0	0.0	4.5
12. INFANT DEATHS (UNDER 1 YEAR)	9	14.5	16.9	8	15.0	16.3	1	11.1	19.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	404	9.4	9.2	370	9.6	9.3	34	7.8	8.3
MALES	243	11.4	11.1	224	11.6	11.2	19	9.0	10.7
FEMALES	161	7.5	7.4	146	7.6	7.5	15	6.8	6.2
14. AGE									
00-04 YEARS	9	3.2	4.0	8	3.2	3.7	1	2.7	5.3
05-14 YEARS	2	0.3	0.4	2	0.4	0.4	0	0.0	0.2
15-24 YEARS	3	0.4	1.0	3	0.4	1.1	0	0.0	0.7
25-34 YEARS	12	1.7	1.6	9	1.4	1.5	3	4.1	2.4
35-44 YEARS	16	3.1	2.2	12	2.6	1.9	4	9.3	6.0
45-54 YEARS	32	7.0	7.8	26	6.2	7.4	6	16.6	12.0
55-64 YEARS	77	16.4	17.7	71	16.2	17.2	6	18.3	23.4
65 AND OVER	253	49.8	50.8	239	50.7	51.2	14	38.4	46.8
15. PLACE OF DEATH									
HOSPITAL	304	75.2	77.0	278	75.1	76.6	26	76.5	80.1
OTHER INSTITUTION	55	13.6	15.1	50	13.5	15.0	5	14.7	15.9
HOME OR NON-INSTITUTION	45	11.1	7.9	42	11.4	8.3	3	8.8	4.0
16. OCCURRENCE									
TOTAL	397	0.8	0.7	359	1.0	0.9	38	0.3	0.4
TO RESIDENTS	342	86.1	82.8	312	86.9	85.0	30	78.9	67.4
OTHER EVENTS									
17. MARRIAGES	507	11.8	11.9						
18. DIVORCES AND ANNULMENTS	224	5.2	5.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CASWELL COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	21009	0.4	0.3	11926	0.3	0.2	9083	0.6	0.7
MALES	10377	49.4	49.0	5962	50.0	48.9	4415	48.6	49.1
FEMALES	10632	50.6	51.0	5964	50.0	51.1	4668	51.4	50.9
2. NATURAL INCREASE	105	5.0	3.6	49	4.1	1.8	56	6.2	5.8
LIVE BIRTHS									
3. TOTAL	275	13.1	12.4	154	12.9	11.1	121	13.3	13.9
MALES	140	6.7	6.2	82	6.9	5.6	58	6.4	6.9
FEMALES	135	6.4	6.2	72	6.0	5.5	63	6.9	7.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	262	95.3	98.3	141	91.6	96.7	121	100.0	99.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.0	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	9	3.3	1.0	9	5.8	2.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.3	0	0.0	0.0
5. PREMATURE BIRTHS	17	6.2	9.1	9	5.8	7.1	8	6.6	11.0
6. OUT OF WEDLOCK	62	22.5	22.2	7	4.5	4.1	55	45.5	39.6
7. OCCURRENCE									
TOTAL	4	0.0	0.0	4	0.0	0.0	0	0.0	0.0
TO RESIDENTS	4	100.0	100.0	4	100.0	100.0	0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	4	14.4	20.1	2	12.9	14.8	2	16.4	25.2
9. FETAL DEATHS	2	7.2	8.8	1	6.5	8.2	1	8.2	9.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	27.3	0	0.0	0.0	1	100.0	50.0
10. NEONATAL (UNDER 28 DAYS)	2	7.3	11.4	1	6.5	6.6	1	8.3	15.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.7	3.3	1	6.5	3.3	0	0.0	3.2
12. INFANT DEATHS (UNDER 1 YEAR)	3	10.9	14.6	2	13.0	9.9	1	8.3	19.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	170	8.1	8.7	105	8.8	9.3	65	7.2	8.1
MALES	100	9.6	10.4	61	10.2	10.4	39	8.8	10.5
FEMALES	70	6.6	7.1	44	7.4	8.2	26	5.6	5.8
14. AGE									
00-04 YEARS	4	3.0	3.5	2	2.9	2.8	2	3.2	4.1
05-14 YEARS	1	0.3	0.3	0	0.0	0.2	1	0.6	0.3
15-24 YEARS	7	1.8	1.4	3	1.5	1.2	4	2.1	1.6
25-34 YEARS	6	1.8	2.2	2	1.1	1.2	4	2.6	3.4
35-44 YEARS	6	2.3	4.0	2	1.3	2.8	4	3.9	5.6
45-54 YEARS	15	7.0	7.7	8	6.2	5.5	7	8.2	10.8
55-64 YEARS	29	14.1	14.6	15	11.8	12.7	14	17.8	17.7
65 AND OVER	102	46.1	49.3	73	50.7	50.3	29	37.7	47.4
15. PLACE OF DEATH									
HOSPITAL	94	55.3	57.3	59	56.2	60.0	35	53.8	53.6
OTHER INSTITUTION	32	18.8	14.6	18	17.1	13.5	14	21.5	16.1
HOME OR NON-INSTITUTION	44	25.9	28.1	28	26.7	26.5	16	24.6	30.3
16. OCCURRENCE									
TOTAL	60	0.1	0.1	35	0.1	0.1	25	0.2	0.2
TO RESIDENTS	53	88.3	88.5	29	82.9	86.4	24	96.0	90.7
OTHER EVENTS									
17. MARRIAGES	156	7.4	6.9						
18. DIVORCES AND ANNULMENTS	62	3.0	2.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CATAWBA COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	106746	1.8	1.8	96229	2.1	2.1	10517	0.7	0.7
MALES	51671	48.4	48.2	46646	48.5	48.3	5025	47.8	47.2
FEMALES	55075	51.6	51.8	49583	51.5	51.7	5492	52.2	52.8
2. NATURAL INCREASE	549	5.1	6.4	461	4.8	5.8	88	8.4	12.1
LIVE BIRTHS									
3. TOTAL	1350	12.6	13.8	1169	12.1	13.1	181	17.2	21.1
MALES	682	6.4	7.0	581	6.0	6.6	101	9.6	11.0
FEMALES	668	6.3	6.8	588	6.1	6.5	80	7.6	10.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1348	99.9	99.8	1168	99.9	99.9	180	99.4	99.4
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.1	1	0.1	0.1	0	0.0	0.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	103	7.6	7.1	74	6.3	6.2	29	16.0	12.9
6. OUT OF WEDLOCK	224	16.6	14.5	117	10.0	7.9	107	59.1	54.7
7. OCCURRENCE									
TOTAL	1833	2.2	2.3	1651	2.9	3.0	182	0.7	0.8
TO RESIDENTS	1205	65.7	67.4	1039	62.9	64.5	166	91.2	90.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	21	15.4	16.8	16	13.6	15.5	5	27.3	24.5
9. FETAL DEATHS	13	9.5	10.0	11	9.3	9.4	2	10.9	13.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	13	100.0	100.0	11	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	15.3	0	0.0	8.6	0	0.0	42.9
10. NEONATAL (UNDER 28 DAYS)	8	5.9	6.9	5	4.3	6.2	3	16.6	10.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	2.2	5.1	2	1.7	4.1	1	5.6	11.0
12. INFANT DEATHS (UNDER 1 YEAR)	11	8.1	11.9	7	6.0	10.3	4	22.1	21.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	801	7.5	7.5	708	7.4	7.3	93	8.8	9.0
MALES	430	8.3	8.9	371	8.0	8.7	59	11.7	10.9
FEMALES	371	6.7	6.2	337	6.8	6.1	34	6.2	7.3
14. AGE									
00-04 YEARS	19	2.6	3.0	15	2.4	2.6	4	4.1	6.1
05-14 YEARS	2	0.1	0.3	2	0.1	0.3	0	0.0	0.3
15-24 YEARS	23	1.3	1.3	20	1.2	1.3	3	1.5	1.4
25-34 YEARS	26	1.5	1.2	18	1.1	1.0	8	4.5	3.9
35-44 YEARS	35	2.5	2.7	28	2.2	2.3	7	6.0	8.0
45-54 YEARS	68	5.8	5.6	53	4.9	5.1	15	17.3	13.2
55-64 YEARS	124	12.1	13.7	106	11.1	12.8	18	26.0	26.7
65 AND OVER	504	47.5	48.4	466	47.5	48.4	38	47.2	49.0
15. PLACE OF DEATH									
HOSPITAL	618	77.2	70.5	537	75.8	69.9	81	87.1	75.3
OTHER INSTITUTION	114	14.2	15.7	104	14.7	16.2	10	10.8	12.1
HOME OR NON-INSTITUTION	69	8.6	13.8	67	9.5	13.9	2	2.2	12.6
16. OCCURRENCE									
TOTAL	782	1.6	1.6	704	1.9	1.9	78	0.6	0.6
TO RESIDENTS	634	81.1	80.2	558	79.3	78.8	76	97.4	93.0
OTHER EVENTS									
17. MARRIAGES	[illegible]20	7.7	7.1						
18. DIVORCES AND ANNULMENTS	6[illegible]2	5.9	5.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CHATHAM COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	34002	0.6	0.6	24878	0.6	0.5	9124	0.6	0.7
MALES	16697	49.1	49.0	12239	49.2	49.2	4458	48.9	48.3
FEMALES	17305	50.9	51.0	12639	50.8	50.8	4666	51.1	51.7
2. NATURAL INCREASE	168	4.9	5.0	99	4.0	4.2	69	7.6	6.9
LIVE BIRTHS									
3. TOTAL	476	14.0	14.1	322	12.9	13.5	154	16.9	15.6
MALES	237	7.0	7.0	164	6.6	6.8	73	8.0	7.5
FEMALES	239	7.0	7.1	158	6.4	6.7	81	8.9	8.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	414	87.0	95.1	271	84.2	93.8	143	92.9	97.9
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.3	0	0.0	0.4	1	0.6	0.1
#CERTIFIED NURSE MIDWIFE	56	11.8	3.6	48	14.9	4.5	8	5.2	1.5
PERMITTED MIDWIFE	0	0.0	0.4	0	0.0	0.5	0	0.0	0.0
5. PREMATURE BIRTHS	40	8.4	7.3	17	5.3	5.3	23	14.9	11.8
6. OUT OF WEDLOCK	80	16.8	16.1	17	5.3	3.5	63	40.9	43.5
7. OCCURRENCE									
TOTAL	301	0.4	0.1	279	0.5	0.2	22	0.1	0.0
TO RESIDENTS	112	37.2	40.9	92	33.0	37.9	20	90.9	75.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	9	18.8	16.7	5	15.5	11.6	4	25.8	27.6
9. FETAL DEATHS	2	4.2	8.3	1	3.1	3.2	1	6.5	19.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	10.5	0	0.0	0.0	0	0.0	14.3
10. NEONATAL (UNDER 28 DAYS)	7	14.7	8.4	4	12.4	8.4	3	19.5	8.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	4.0	0	0.0	2.6	0	0.0	7.1
12. INFANT DEATHS (UNDER 1 YEAR)	7	14.7	12.4	4	12.4	11.0	3	19.5	15.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	308	9.1	9.1	223	9.0	9.3	85	9.3	8.6
MALES	178	10.7	10.9	128	10.5	10.8	50	11.2	11.2
FEMALES	130	7.5	7.4	95	7.5	7.8	35	7.5	6.2
14. AGE									
00-04 YEARS	8	3.8	2.9	4	2.7	2.5	4	6.3	3.7
05-14 YEARS	1	0.2	0.3	1	0.3	0.2	0	0.0	0.3
15-24 YEARS	6	1.1	1.5	3	0.8	1.5	3	1.7	1.5
25-34 YEARS	9	1.5	1.5	5	1.1	0.7	4	2.6	3.8
35-44 YEARS	10	2.3	3.1	6	1.8	2.0	4	3.8	6.4
45-54 YEARS	29	8.2	6.6	16	6.0	4.8	13	14.7	11.8
55-64 YEARS	50	14.6	15.6	37	14.1	14.5	13	16.2	19.0
65 AND OVER	195	49.0	51.5	151	49.3	53.2	44	48.3	45.3
15. PLACE OF DEATH									
HOSPITAL	224	72.7	63.8	162	72.6	64.6	62	72.9	61.4
OTHER INSTITUTION	32	10.4	15.6	22	9.9	16.7	10	11.8	12.7
HOME OR NON-INSTITUTION	52	16.9	20.6	39	17.5	18.7	13	15.3	25.9
16. OCCURRENCE									
TOTAL	204	0.4	0.4	157	0.4	0.5	47	0.4	0.4
TO RESIDENTS	172	84.3	78.5	129	82.2	76.8	43	91.5	83.6
OTHER EVENTS									
17. MARRIAGES	215	6.3	6.5						
18. DIVORCES AND ANNULMENTS	123	3.6	3.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CHEROKEE COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	19218	0.3	0.3	18523	0.4	0.4	695	0.0	0.0
MALES	9261	48.2	47.6	8944	48.3	47.8	317	45.6	42.9
FEMALES	9957	51.8	52.4	9579	51.7	52.2	378	54.4	57.1
2. NATURAL INCREASE	65	3.4	3.7	65	3.5	3.4	0	0.0	12.6
LIVE BIRTHS									
3. TOTAL	225	11.7	13.1	223	12.0	12.9	2	2.9	18.5
MALES	118	6.1	6.4	117	6.3	6.3	1	1.4	9.4
FEMALES	107	5.6	6.7	106	5.7	6.6	1	1.4	9.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	218	96.9	97.7	216	96.9	97.7	2	100.0	98.1
PHYSICIAN NOT IN HOSPITAL	1	0.4	1.6	1	0.4	1.6	0	0.0	1.9
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	5	2.2	0.4	5	2.2	0.4	0	0.0	0.0
5. PREMATURE BIRTHS	11	4.9	6.0	11	4.9	6.0	0	0.0	5.7
6. OUT OF WEDLOCK	19	8.4	7.1	19	8.5	5.6	0	0.0	37.7
7. OCCURRENCE									
TOTAL	225	0.3	0.3	223	0.4	0.4	2	0.0	0.0
TO RESIDENTS	159	70.7	68.8	158	70.9	68.1	1	50.0	86.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	13.3	14.2	3	13.4	14.8	0	0.0	0.0
9. FETAL DEATHS	1	4.4	7.5	1	4.5	7.8	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	88.9	1	100.0	88.9	0		
PHYSICIAN NOT IN HOSPITAL	0	0.0	11.1	0	0.0	11.1	0		
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
OUT OF WEDLOCK	0	0.0	11.1	0	0.0	11.1	0		
10. NEONATAL (UNDER 28 DAYS)	2	8.9	6.7	2	9.0	7.0	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	5.9	0	0.0	6.2	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	2	8.9	12.6	2	9.0	13.2	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	160	8.3	9.4	158	8.5	9.5	2	2.9	5.9
MALES	77	8.3	11.3	75	8.4	11.4	2	6.3	8.1
FEMALES	83	8.3	7.6	83	8.7	7.7	0	0.0	4.3
14. AGE									
00-04 YEARS	2	1.6	2.9	2	1.6	3.0	0	0.0	0.0
05-14 YEARS	1	0.3	0.4	1	0.3	0.4	0	0.0	0.0
15-24 YEARS	5	1.8	1.4	5	1.9	1.4	0	0.0	2.0
25-34 YEARS	6	2.3	1.3	6	2.4	1.3	0	0.0	2.3
35-44 YEARS	5	2.1	3.8	5	2.2	3.4	0	0.0	15.6
45-54 YEARS	11	5.5	6.5	10	5.1	6.6	1	21.7	5.1
55-64 YEARS	22	10.3	12.4	22	10.6	12.5	0	0.0	9.3
65 AND OVER	108	36.6	44.1	107	37.6	44.6	1	10.0	24.8
15. PLACE OF DEATH									
HOSPITAL	110	68.8	73.1	109	69.0	73.5	1	50.0	52.9
OTHER INSTITUTION	16	10.0	10.1	16	10.1	10.2	0	0.0	5.9
HOME OR NON-INSTITUTION	34	21.2	16.8	33	20.9	16.3	1	50.0	41.2
16. OCCURRENCE									
TOTAL	165	0.3	0.3	161	0.4	0.4	4	0.0	0.0
TO RESIDENTS	110	66.7	75.1	108	67.1	75.2	2	50.0	70.0
OTHER EVENTS									
17. MARRIAGES	224	11.7	12.1						
18. DIVORCES AND ANNULMENTS	61	3.2	2.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CHOWAN COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	12638	0.2	0.2	7316	0.2	0.2	5322	0.4	0.4
MALES	5923	46.9	48.2	3503	47.9	48.6	2420	45.5	47.7
FEMALES	6715	53.1	51.8	3813	52.1	51.4	2902	54.5	52.3
2. NATURAL INCREASE	64	5.1	4.7	7	1.0	0.4	57	10.7	10.8
LIVE BIRTHS									
3. TOTAL	195	15.4	15.7	77	10.5	11.5	118	22.2	21.6
MALES	108	8.5	8.3	48	6.6	6.1	60	11.3	11.3
FEMALES	87	6.9	7.4	29	4.0	5.4	58	10.9	10.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	194	99.5	99.6	76	98.7	99.0	118	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	0.5	0.2	1	1.3	0.5	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	18	9.2	8.5	4	5.2	5.1	14	11.9	11.1
6. OUT OF WEDLOCK	50	25.6	28.3	2	2.6	3.2	48	40.7	47.0
7. OCCURRENCE									
TOTAL	471	0.6	0.5	208	0.4	0.4	263	1.0	0.9
TO RESIDENTS	178	37.8	39.6	68	32.7	35.7	110	41.8	42.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	5.1	26.7	0	0.0	7.3	1	8.5	40.9
9. FETAL DEATHS	0	0.0	13.4	0	0.0	2.4	0	0.0	21.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		92.3	0		100.0	0		91.7
PHYSICIAN NOT IN HOSPITAL	0		7.7	0		0.0	0		8.3
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		0.0
PERMITTED MIDWIFE	0		0.0	0		0.0	0		0.0
OUT OF WEDLOCK	0		46.2	0		0.0	0		50.0
10. NEONATAL (UNDER 28 DAYS)	1	5.1	13.5	0	0.0	4.9	1	8.5	20.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	4.2	0	0.0	4.9	0	0.0	3.7
12. INFANT DEATHS (UNDER 1 YEAR)	1	5.1	17.7	0	0.0	9.8	1	8.5	23.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	131	10.4	11.0	70	9.6	11.1	61	11.5	10.8
MALES	66	11.1	12.9	32	9.1	12.3	34	14.0	13.7
FEMALES	65	9.7	9.2	38	10.0	9.9	27	9.3	8.2
14. AGE									
00-04 YEARS	1	1.1	4.9	0	0.0	1.9	1	2.0	7.8
05-14 YEARS	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
15-24 YEARS	5	2.5	1.4	4	4.0	1.4	1	1.0	1.4
25-34 YEARS	3	1.6	1.3	1	1.0	0.6	2	2.3	2.4
35-44 YEARS	4	3.0	4.7	3	3.5	3.2	1	2.2	7.7
45-54 YEARS	9	6.9	8.0	3	3.5	6.4	6	13.7	10.7
55-64 YEARS	21	14.6	17.4	11	11.1	14.8	10	22.2	22.1
65 AND OVER	88	48.0	54.3	48	39.6	54.0	40	64.4	54.7
15. PLACE OF DEATH									
HOSPITAL	101	77.1	79.9	51	72.9	80.5	50	82.0	79.0
OTHER INSTITUTION	14	10.7	8.5	11	15.7	9.1	3	4.9	7.6
HOME OR NON-INSTITUTION	16	12.2	11.6	8	11.4	10.4	8	13.1	13.4
16. OCCURRENCE									
TOTAL	202	0.4	0.4	104	0.3	0.3	98	0.8	0.7
TO RESIDENTS	106	52.5	52.3	55	52.9	52.2	51	52.0	52.4
OTHER EVENTS									
17. MARRIAGES	78	6.2	6.8						
18. DIVORCES AND ANNULMENTS	39	3.1	2.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CLAY COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	6957	0.1	0.1	6905	0.2	0.1	52	0.0	0.0
MALES	3451	49.6	47.2	3429	49.7	47.2	22	42.3	50.2
FEMALES	3506	50.4	52.8	3476	50.3	52.8	30	57.7	49.8
2. NATURAL INCREASE	8	1.1	2.4	7	1.0	2.4	1	19.2	9.7
LIVE BIRTHS									
3. TOTAL	82	11.8	12.7	81	11.7	12.7	1	19.2	19.4
MALES	40	5.7	6.5	39	5.6	6.4	1	19.2	12.9
FEMALES	42	6.0	6.2	42	6.1	6.2	0	0.0	6.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	75	91.5	92.4	74	91.4	92.3	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	4	4.9	5.0	4	4.9	5.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.3	0	0.0	0.3	0	0.0	0.0
PERMITTED MIDWIFE	3	3.7	1.3	3	3.7	1.3	0	0.0	0.0
5. PREMATURE BIRTHS	2	2.4	3.5	2	2.5	3.6	0	0.0	0.0
6. OUT OF WEDLOCK	1	1.2	3.5	0	0.0	3.1	1	100.0	33.3
7. OCCURRENCE									
TOTAL	9	0.0	0.0	9	0.0	0.0	0	0.0	0.0
TO RESIDENTS	7	77.8	73.2	7	77.8	73.2	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	12.2	17.4	1	12.3	17.7	0	0.0	0.0
9. FETAL DEATHS	0	0.0	12.4	0	0.0	12.6	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		100.0	0		100.0	0		
PHYSICIAN NOT IN HOSPITAL	0		0.0	0		0.0	0		
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		
PERMITTED MIDWIFE	0		0.0	0		0.0	0		
OUT OF WEDLOCK	0		20.0	0		20.0	0		
10. NEONATAL (UNDER 28 DAYS)	1	12.2	5.0	1	12.3	5.1	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	7.6	0	0.0	7.7	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	1	12.2	12.6	1	12.3	12.8	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	74	10.6	10.3	74	10.7	10.3	0	0.0	9.7
MALES	45	13.0	12.7	45	13.1	12.6	0	0.0	19.4
FEMALES	29	8.3	8.1	29	8.3	8.2	0	0.0	0.0
14. AGE									
00-04 YEARS	1	2.3	3.1	1	2.3	3.1	0	0.0	0.0
05-14 YEARS	1	1.0	0.4	1	1.0	0.5	0	0.0	0.0
15-24 YEARS	1	1.0	1.0	1	1.1	1.1	0	0.0	0.0
25-34 YEARS	2	1.9	2.9	2	1.9	2.9	0	0.0	0.0
35-44 YEARS	0	0.0	2.1	0	0.0	1.8	0	0.0	45.5
45-54 YEARS	7	10.4	7.4	7	10.5	7.5	0	0.0	0.0
55-64 YEARS	15	17.1	12.2	15	17.3	12.4	0	0.0	0.0
65 AND OVER	47	40.1	43.8	47	40.4	43.7	0	0.0	66.7
15. PLACE OF DEATH									
HOSPITAL	55	74.3	64.5	55	74.3	64.8	0		33.3
OTHER INSTITUTION	5	6.8	10.0	5	6.8	9.4	0		66.7
HOME OR NON-INSTITUTION	14	18.9	25.5	14	18.9	25.8	0		0.0
16. OCCURRENCE									
TOTAL	15	0.0	0.0	15	0.0	0.0	0	0.0	0.0
TO RESIDENTS	14	93.3	94.4	14	93.3	94.4	0		100.0
OTHER EVENTS									
17. MARRIAGES	72	10.3	8.9						
18. DIVORCES AND ANNULMENTS	26	3.7	2.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CLEVELAND COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	83837	1.4	1.4	66065	1.5	1.5	17772	1.2	1.2
MALES	40327	48.1	48.3	31987	48.4	48.6	8340	46.9	47.1
FEMALES	43510	51.9	51.7	34078	51.6	51.4	9432	53.1	52.9
2. NATURAL INCREASE	320	3.8	5.4	93	1.4	3.4	227	12.8	13.2
LIVE BIRTHS									
3. TOTAL	1098	13.1	14.4	726	11.0	12.4	372	20.9	22.3
MALES	569	6.8	7.5	359	5.4	6.4	210	11.8	11.6
FEMALES	529	6.3	6.9	367	5.6	6.0	162	9.1	10.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1096	99.8	99.8	725	99.9	99.9	371	99.7	99.6
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.0	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	1	0.1	0.0	0	0.0	0.0	1	0.3	0.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	92	8.4	8.2	48	6.6	6.7	44	11.8	11.5
6. OUT OF WEDLOCK	257	23.4	20.3	62	8.5	6.8	195	52.4	49.3
7. OCCURRENCE									
TOTAL	1355	1.6	1.8	954	1.7	2.0	401	1.5	1.5
TO RESIDENTS	973	71.8	69.7	628	65.8	63.6	345	86.0	86.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	27	24.3	24.3	16	21.8	19.1	11	29.3	35.5
9. FETAL DEATHS	13	11.7	11.1	9	12.2	9.3	4	10.6	15.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	13	100.0	98.5	9	100.0	100.0	4	100.0	96.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.5	0	0.0	0.0	0	0.0	3.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	5	38.5	33.8	1	11.1	18.9	4	100.0	53.6
10. NEONATAL (UNDER 28 DAYS)	14	12.8	13.3	7	9.6	9.9	7	18.8	20.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	11	10.1	7.9	7	9.7	5.4	4	11.0	13.4
12. INFANT DEATHS (UNDER 1 YEAR)	25	22.8	21.1	14	19.3	15.2	11	29.6	33.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	778	9.3	9.0	633	9.6	9.0	145	8.2	9.1
MALES	433	10.7	10.3	351	11.0	10.2	82	9.8	10.9
FEMALES	345	7.9	7.8	282	8.3	7.9	63	6.7	7.5
14. AGE									
00-04 YEARS	27	4.7	4.6	15	3.6	3.2	12	7.6	8.2
05-14 YEARS	8	0.6	0.4	6	0.6	0.3	2	0.5	0.5
15-24 YEARS	21	1.4	1.5	15	1.4	1.4	6	1.6	1.8
25-34 YEARS	15	1.1	1.4	12	1.2	0.8	3	1.1	3.5
35-44 YEARS	25	2.4	3.2	18	2.1	2.5	7	3.7	6.9
45-54 YEARS	59	6.8	7.0	44	6.0	6.1	15	11.3	12.0
55-64 YEARS	110	13.5	14.7	92	13.4	13.6	18	14.4	20.8
65 AND OVER	513	54.3	54.9	431	53.3	54.6	82	59.6	56.6
15. PLACE OF DEATH									
HOSPITAL	592	76.1	69.2	466	73.6	68.6	126	86.9	71.4
OTHER INSTITUTION	98	12.6	14.9	87	13.7	15.7	11	7.6	11.8
HOME OR NON-INSTITUTION	88	11.3	15.9	80	12.6	15.7	8	5.5	16.9
16. OCCURRENCE									
TOTAL	837	1.7	1.7	690	1.8	1.8	147	1.2	1.2
TO RESIDENTS	680	81.2	76.8	553	80.1	74.9	127	86.4	85.4
OTHER EVENTS									
17. MARRIAGES	419	5.0	5.0						
18. DIVORCES AND ANNULMENTS	354	4.2	4.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

COLUMBUS COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	51952	0.9	0.9	34934	0.8	0.8	17018	1.2	1.2
MALES	24925	48.0	47.9	16857	48.3	48.4	8068	47.4	46.9
FEMALES	27027	52.0	52.1	18077	51.7	51.6	8950	52.6	53.1
2. NATURAL INCREASE	302	5.8	6.8	114	3.3	4.2	188	11.0	12.2
LIVE BIRTHS									
3. TOTAL	792	15.2	16.3	434	12.4	13.5	358	21.0	22.4
MALES	398	7.7	8.4	222	6.4	7.0	176	10.3	11.2
FEMALES	394	7.6	8.0	212	6.1	6.5	182	10.7	11.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	660	83.3	90.5	381	87.8	93.5	279	77.9	86.6
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.4	1	0.2	0.1	0	0.0	0.7
#CERTIFIED NURSE MIDWIFE	125	15.8	6.5	49	11.3	4.5	76	21.2	9.1
PERMITTED MIDWIFE	0	0.0	2.4	0	0.0	1.8	0	0.0	3.2
5. PREMATURE BIRTHS	60	7.6	9.0	24	5.5	6.4	36	10.1	12.3
6. OUT OF WEDLOCK	194	24.5	24.1	35	8.1	6.8	159	44.4	46.0
7. OCCURRENCE									
TOTAL	637	0.8	0.7	332	0.6	0.5	305	1.1	1.1
TO RESIDENTS	585	91.8	90.6	294	88.6	89.0	291	95.4	92.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	17	21.2	24.2	8	18.2	19.0	9	24.8	30.8
9. FETAL DEATHS	11	13.7	13.6	6	13.6	8.8	5	13.8	19.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	11	100.0	94.8	6	100.0	100.0	5	100.0	91.9
PHYSICIAN NOT IN HOSPITAL	0	0.0	3.4	0	0.0	0.0	0	0.0	5.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	1.7	0	0.0	0.0	0	0.0	2.7
OUT OF WEDLOCK	1	9.1	32.8	0	0.0	0.0	1	20.0	51.4
10. NEONATAL (UNDER 28 DAYS)	6	7.6	10.7	2	4.6	10.2	4	11.2	11.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	8	10.2	7.2	3	6.9	3.4	5	14.1	12.0
12. INFANT DEATHS (UNDER 1 YEAR)	14	17.7	17.8	5	11.5	13.6	9	25.1	23.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	490	9.4	9.6	320	9.2	9.3	170	10.0	10.1
MALES	296	11.9	11.7	207	12.3	11.5	89	11.0	12.2
FEMALES	194	7.2	7.6	113	6.3	7.2	81	9.1	8.3
14. AGE									
00-04 YEARS	15	3.8	4.9	5	2.2	3.6	10	6.3	6.8
05-14 YEARS	5	0.6	0.4	3	0.6	0.4	2	0.6	0.4
15-24 YEARS	11	1.2	1.3	8	1.4	1.2	3	0.9	1.5
25-34 YEARS	16	2.0	2.0	12	2.2	1.5	4	1.6	3.5
35-44 YEARS	20	3.1	3.1	11	2.3	2.4	9	5.6	5.1
45-54 YEARS	38	7.1	8.6	23	5.8	7.1	15	10.9	12.7
55-64 YEARS	90	17.8	19.0	61	17.0	17.6	29	19.9	22.4
65 AND OVER	295	50.7	50.9	197	48.3	51.8	98	56.5	48.8
15. PLACE OF DEATH									
HOSPITAL	346	70.6	70.7	234	73.1	73.5	112	65.9	65.3
OTHER INSTITUTION	59	12.0	12.9	43	13.4	12.1	16	9.4	14.3
HOME OR NON-INSTITUTION	85	17.3	16.5	43	13.4	14.4	42	24.7	20.4
16. OCCURRENCE									
TOTAL	393	0.8	0.7	245	0.7	0.6	148	1.2	1.0
TO RESIDENTS	346	88.0	88.7	219	89.4	88.8	127	85.8	88.4
OTHER EVENTS									
17. MARRIAGES	247	4.8	4.1						
18. DIVORCES AND ANNULMENTS	227	4.4	4.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CRAVEN COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	71832	1.2	1.2	50746	1.1	1.1	21086	1.5	1.4
MALES	36889	51.4	51.7	26586	52.4	53.4	10303	48.9	47.3
FEMALES	34943	48.6	48.3	24160	47.6	46.6	10783	51.1	52.7
2. NATURAL INCREASE	1019	14.2	14.1	727	14.3	13.7	292	13.8	15.2
LIVE BIRTHS									
3. TOTAL	1535	21.4	21.2	1074	21.2	20.4	461	21.9	23.3
MALES	783	10.9	10.8	537	10.6	10.2	246	11.7	12.5
FEMALES	752	10.5	10.4	537	10.6	10.2	215	10.2	10.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1521	99.1	99.5	1063	99.0	99.6	458	99.3	99.3
PHYSICIAN NOT IN HOSPITAL	2	0.1	0.2	0	0.0	0.1	2	0.4	0.6
#CERTIFIED NURSE MIDWIFE	5	0.3	0.1	5	0.5	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	114	7.4	7.4	58	5.4	5.7	56	12.1	11.1
6. OUT OF WEDLOCK	202	13.2	13.7	34	3.2	3.1	168	36.4	37.6
7. OCCURRENCE									
TOTAL	1700	2.0	1.9	1212	2.1	1.9	488	1.8	1.8
TO RESIDENTS	1330	78.2	80.0	964	79.5	80.8	366	75.0	78.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	23	14.8	20.0	13	12.0	16.5	10	21.5	27.9
9. FETAL DEATHS	15	9.7	11.4	10	9.2	9.5	5	10.7	15.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	15	100.0	97.6	10	100.0	100.0	5	100.0	94.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	2.4	0	0.0	0.0	0	0.0	5.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	6	40.0	21.2	3	30.0	8.2	3	60.0	38.9
10. NEONATAL (UNDER 28 DAYS)	8	5.2	8.7	3	2.8	7.1	5	10.8	12.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	6	3.9	4.3	3	2.8	3.6	3	6.6	5.8
12. INFANT DEATHS (UNDER 1 YEAR)	14	9.1	12.9	6	5.6	10.6	8	17.4	18.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	516	7.2	7.1	347	6.8	6.7	169	8.0	8.1
MALES	287	7.8	7.6	186	7.0	7.0	101	9.8	9.5
FEMALES	229	6.6	6.5	161	6.7	6.3	68	6.3	6.9
14. AGE									
00-04 YEARS	19	2.9	3.9	7	1.6	3.1	12	5.5	5.7
05-14 YEARS	3	0.3	0.5	2	0.3	0.6	1	0.3	0.3
15-24 YEARS	17	1.0	0.9	14	1.2	1.0	3	0.6	0.7
25-34 YEARS	18	1.5	1.2	12	1.3	1.0	6	1.8	1.7
35-44 YEARS	16	2.1	2.7	11	1.9	2.5	5	2.8	3.3
45-54 YEARS	42	6.8	7.4	23	5.0	6.3	19	12.0	10.3
55-64 YEARS	81	14.3	18.2	52	12.6	16.5	29	19.1	22.6
65 AND OVER	320	56.2	53.7	226	57.4	56.6	94	53.4	48.1
15. PLACE OF DEATH									
HOSPITAL	402	77.9	78.9	260	74.9	77.9	142	84.0	80.9
OTHER INSTITUTION	62	12.0	12.5	53	15.3	13.4	9	5.3	10.7
HOME OR NON-INSTITUTION	52	10.1	8.6	34	9.8	8.7	18	10.7	8.4
16. OCCURRENCE									
TOTAL	597	1.2	1.2	397	1.1	1.1	200	1.6	1.5
TO RESIDENTS	416	69.7	66.8	273	68.8	66.0	143	71.5	68.6
OTHER EVENTS									
17. MARRIAGES	819	11.4	10.8						
18. DIVORCES AND ANNULMENTS	344	4.8	4.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CUMBERLAND COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	251138	4.2	4.2	157750	3.5	3.7	93388	6.4	5.8
MALES	131891	52.5	54.9	83588	53.0	55.8	48303	51.7	53.1
FEMALES	119247	47.5	45.1	74162	47.0	44.2	45085	48.3	46.9
2. NATURAL INCREASE	3887	15.5	16.3	2201	14.0	14.6	1686	18.1	19.8
LIVE BIRTHS									
3. TOTAL	5140	20.5	21.4	3054	19.4	19.6	2086	22.3	25.0
MALES	2649	10.5	10.9	1582	10.0	10.1	1067	11.4	12.6
FEMALES	2491	9.9	10.5	1472	9.3	9.5	1019	10.9	12.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	5121	99.6	99.7	3039	99.5	99.6	2082	99.8	99.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	11	0.2	0.1	9	0.3	0.1	2	0.1	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	378	7.4	7.3	155	5.1	5.4	223	10.7	10.3
6. OUT OF WEDLOCK	759	14.8	13.9	190	6.2	5.5	569	27.3	27.3
7. OCCURRENCE									
TOTAL	5701	6.7	6.7	3405	5.9	6.1	2296	8.5	7.9
TO RESIDENTS	4952	86.9	87.5	2946	86.5	86.9	2006	87.4	88.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	89	17.2	20.1	46	15.0	16.5	43	20.4	25.9
9. FETAL DEATHS	43	8.3	9.5	22	7.2	6.9	21	10.0	13.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	42	97.7	98.4	21	95.5	98.2	21	100.0	98.5
PHYSICIAN NOT IN HOSPITAL	1	2.3	0.8	1	4.5	1.8	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	8	18.6	21.6	3	13.6	10.0	5	23.8	31.1
10. NEONATAL (UNDER 28 DAYS)	46	8.9	10.7	24	7.9	9.6	22	10.5	12.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	28	5.5	4.5	21	6.9	4.5	7	3.4	4.5
12. INFANT DEATHS (UNDER 1 YEAR)	74	14.4	15.2	45	14.7	14.0	29	13.9	17.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1253	5.0	5.1	853	5.4	5.1	400	4.3	5.3
MALES	757	5.7	5.5	508	6.1	5.4	249	5.2	5.7
FEMALES	496	4.2	4.6	345	4.7	4.6	151	3.3	4.7
14. AGE									
00-04 YEARS	88	3.9	4.7	53	4.0	4.3	35	3.7	5.4
05-14 YEARS	13	0.3	0.4	11	0.5	0.4	2	0.1	0.4
15-24 YEARS	55	0.8	0.9	36	0.9	0.8	19	0.7	1.0
25-34 YEARS	53	1.1	1.5	33	1.1	1.4	20	1.1	1.6
35-44 YEARS	69	2.5	2.8	36	1.9	2.3	33	3.6	4.0
45-54 YEARS	142	7.0	8.5	91	6.3	7.9	51	8.6	10.0
55-64 YEARS	227	15.9	17.9	157	14.9	16.7	70	18.5	20.8
65 AND OVER	606	51.2	56.6	436	53.5	58.2	170	46.2	53.4
15. PLACE OF DEATH									
HOSPITAL	848	67.7	75.8	567	66.5	73.9	281	70.2	79.4
OTHER INSTITUTION	255	20.4	19.0	182	21.3	20.0	73	18.2	17.1
HOME OR NON-INSTITUTION	150	12.0	5.3	104	12.2	6.1	46	11.5	3.6
16. OCCURRENCE									
TOTAL	1471	3.0	3.0	951	2.5	2.5	520	4.2	4.2
TO RESIDENTS	1038	70.6	71.5	703	73.9	72.5	335	64.4	69.6
OTHER EVENTS									
17. MARRIAGES	1628	6.5	6.3						
18. DIVORCES AND ANNULMENTS	1488	5.9	5.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CURRITUCK COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	11310	0.2	0.2	9584	0.2	0.2	1726	0.1	0.1
MALES	5793	51.2	49.5	4901	51.1	48.6	892	51.7	53.6
FEMALES	5517	48.8	50.5	4683	48.9	51.4	834	48.3	46.4
2. NATURAL INCREASE	46	4.1	5.0	43	4.5	4.5	3	1.7	7.4
LIVE BIRTHS									
3. TOTAL	153	13.5	14.2	122	12.7	13.3	31	18.0	18.2
MALES	73	6.5	7.5	59	6.2	7.2	14	8.1	9.1
FEMALES	80	7.1	6.7	63	6.6	6.1	17	9.8	9.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	135	88.2	95.2	107	87.7	95.1	28	90.3	95.4
PHYSICIAN NOT IN HOSPITAL	3	2.0	0.7	3	2.5	0.8	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	14	9.2	3.5	11	9.0	3.7	3	9.7	2.9
PERMITTED MIDWIFE	0	0.0	0.3	0	0.0	0.2	0	0.0	0.6
5. PREMATURE BIRTHS	10	6.5	7.2	8	6.6	5.5	2	6.5	11.5
6. OUT OF WEDLOCK	22	14.4	14.3	12	9.8	6.4	10	32.3	41.4
7. OCCURRENCE									
TOTAL	2	0.0	0.0	2	0.0	0.0	0	0.0	0.0
TO RESIDENTS	2	100.0	100.0	2	100.0	100.0	0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	31.8	19.3	2	16.3	16.7	3	88.2	27.9
9. FETAL DEATHS	4	25.5	11.6	1	8.1	6.7	3	88.2	27.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	1	100.0	100.0	3	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	25.0	22.2	0	0.0	0.0	1	33.3	40.0
10. NEONATAL (UNDER 28 DAYS)	1	6.5	7.8	1	8.2	10.1	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	19.7	5.2	2	16.5	3.4	1	32.3	11.5
12. INFANT DEATHS (UNDER 1 YEAR)	4	26.1	13.0	3	24.6	13.5	1	32.3	11.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	107	9.5	9.1	79	8.2	8.6	28	16.2	10.8
MALES	69	11.9	11.0	50	10.2	10.6	19	21.3	12.7
FEMALES	38	6.9	7.3	29	6.2	7.1	9	10.8	8.6
14. AGE									
00-04 YEARS	5	6.3	3.1	4	6.2	3.3	1	6.8	2.5
05-14 YEARS	0	0.0	0.2	0	0.0	0.3	0	0.0	0.0
15-24 YEARS	3	1.6	2.2	3	1.9	1.8	0	0.0	4.0
25-34 YEARS	4	2.2	1.2	1	0.7	0.7	3	10.5	3.4
35-44 YEARS	1	0.7	3.0	0	0.0	2.3	1	6.5	6.9
45-54 YEARS	13	11.0	9.6	9	8.7	9.1	4	27.2	12.5
55-64 YEARS	16	13.6	17.1	11	11.0	15.5	5	28.6	24.9
65 AND OVER	65	50.3	43.0	51	46.9	41.8	14	68.0	50.4
15. PLACE OF DEATH									
HOSPITAL	67	62.6	62.9	51	64.6	65.9	16	57.1	51.5
OTHER INSTITUTION	15	14.0	13.7	14	17.7	15.0	1	3.6	8.7
HOME OR NON-INSTITUTION	25	23.4	23.4	14	17.7	19.1	11	39.3	39.8
16. OCCURRENCE									
TOTAL	37	0.1	0.1	25	0.1	0.1	12	0.1	0.1
TO RESIDENTS	29	78.4	77.0	17	68.0	70.1	12	100.0	95.7
OTHER EVENTS									
17. MARRIAGES	63	5.6	5.7						
18. DIVORCES AND ANNULMENTS	44	3.9	3.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

DARE COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	14461	0.2	0.2	13483	0.3	0.3	978	0.1	0.1
MALES	7218	49.9	48.6	6769	50.2	48.6	449	45.9	49.0
FEMALES	7243	50.1	51.4	6714	49.8	51.4	529	54.1	51.0
2. NATURAL INCREASE	114	7.9	5.7	103	7.6	5.5	11	11.2	8.5
LIVE BIRTHS									
3. TOTAL	217	15.0	14.5	200	14.8	14.4	17	17.4	15.6
MALES	108	7.5	7.6	99	7.3	7.4	9	9.2	9.8
FEMALES	109	7.5	6.9	101	7.5	7.0	8	8.2	5.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	181	83.4	91.9	164	82.0	91.5	17	100.0	96.9
PHYSICIAN NOT IN HOSPITAL	4	1.8	1.8	4	2.0	1.7	0	0.0	3.1
#CERTIFIED NURSE MIDWIFE	31	14.3	5.4	31	15.5	5.8	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.2	0	0.0	0.0
5. PREMATURE BIRTHS	7	3.2	5.1	7	3.5	5.2	0	0.0	3.1
6. OUT OF WEDLOCK	18	8.3	9.0	8	4.0	5.7	10	58.8	50.0
7. OCCURRENCE									
TOTAL	4	0.0	0.0	4	0.0	0.0	0	0.0	0.0
TO RESIDENTS	3	75.0	90.5	3	75.0	89.5	0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	4.6	17.1	1	5.0	16.0	0	0.0	30.8
9. FETAL DEATHS	1	4.6	9.1	1	5.0	8.6	0	0.0	15.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	87.5	1	100.0	100.0	0		0.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	12.5	0	0.0	0.0	0		100.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	25.0	0	0.0	14.3	0		100.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	8.1	0	0.0	7.5	0	0.0	15.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.6	2.3	1	5.0	2.5	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	1	4.6	10.4	1	5.0	10.0	0	0.0	15.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	103	7.1	8.7	97	7.2	8.9	6	6.1	7.1
MALES	62	8.6	10.2	58	8.6	10.2	4	8.9	9.0
FEMALES	41	5.7	7.4	39	5.8	7.6	2	3.8	5.3
14. AGE									
00-04 YEARS	2	2.4	3.1	2	2.6	3.1	0	0.0	3.6
05-14 YEARS	0	0.0	0.4	0	0.0	0.4	0	0.0	0.0
15-24 YEARS	1	0.4	1.0	1	0.5	1.0	0	0.0	0.0
25-34 YEARS	3	1.2	0.8	3	1.2	0.8	0	0.0	1.6
35-44 YEARS	2	1.2	2.2	2	1.3	2.0	0	0.0	4.6
45-54 YEARS	10	6.6	6.7	9	6.4	6.5	1	9.1	9.8
55-64 YEARS	20	10.5	15.8	19	10.4	16.0	1	13.3	12.4
65 AND OVER	65	35.7	41.3	61	35.8	41.4	4	35.1	39.9
15. PLACE OF DEATH									
HOSPITAL	56	54.4	55.9	54	55.7	56.2	2	33.3	51.7
OTHER INSTITUTION	21	20.4	21.2	18	18.6	20.6	3	50.0	31.0
HOME OR NON-INSTITUTION	26	25.2	22.9	25	25.8	23.2	1	16.7	17.2
16. OCCURRENCE									
TOTAL	59	0.1	0.1	56	0.1	0.2	3	0.0	0.0
TO RESIDENTS	36	61.0	57.0	33	58.9	56.6	3	100.0	64.3
OTHER EVENTS									
17. MARRIAGES	192	13.3	12.8						
18. DIVORCES AND ANNULMENTS	75	5.2	4.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

DAVIDSON COUNTY

ITEM	TOTAL NUMBER 1981	RATE* 1981		WHITE NUMBER 1981	RATE* 1981		NONWHITE NUMBER 1981	RATE* 1981	
			77-81			77-81			77-81
POPULATION									
1. TOTAL	113661	1.9	1.9	101769	2.3	2.2	11892	0.8	0.8
MALES	55449	48.8	48.8	49765	48.9	49.0	5684	47.8	47.4
FEMALES	58212	51.2	51.2	52004	51.1	51.0	6208	52.2	52.6
2. NATURAL INCREASE	586	5.2	5.9	492	4.8	5.3	94	7.9	10.3
LIVE BIRTHS									
3. TOTAL	1442	12.7	13.4	1247	12.3	12.8	195	16.4	18.9
MALES	705	6.2	6.9	609	6.0	6.6	96	8.1	9.6
FEMALES	737	6.5	6.5	638	6.3	6.2	99	8.3	9.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1414	98.1	98.7	1231	98.7	99.1	183	93.8	96.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.3	0	0.0	0.2	0	0.0	0.7
#CERTIFIED NURSE MIDWIFE	4	0.3	0.1	4	0.3	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.1
5. PREMATURE BIRTHS	103	7.1	7.9	77	6.2	7.0	26	13.3	13.5
6. OUT OF WEDLOCK	204	14.1	12.8	89	7.1	6.6	115	59.0	51.6
7. OCCURRENCE									
TOTAL	971	1.1	1.1	820	1.4	1.4	151	0.6	0.6
TO RESIDENTS	899	92.6	92.4	754	92.0	91.6	145	96.0	96.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	24	16.5	17.8	20	15.9	15.1	4	20.2	34.7
9. FETAL DEATHS	15	10.3	10.1	12	9.5	8.3	3	15.2	20.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	15	100.0	95.9	12	100.0	96.2	3	100.0	95.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	4.1	0	0.0	3.8	0	0.0	4.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	13.3	24.7	0	0.0	5.8	2	66.7	71.4
10. NEONATAL (UNDER 28 DAYS)	9	6.2	7.8	8	6.4	6.8	1	5.1	14.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	2.8	4.1	3	2.4	2.9	1	5.2	11.3
12. INFANT DEATHS (UNDER 1 YEAR)	13	9.0	11.9	11	8.8	9.7	2	10.3	25.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	856	7.5	7.6	755	7.4	7.5	101	8.5	8.6
MALES	475	8.6	9.0	429	8.6	8.9	46	8.1	10.1
FEMALES	381	6.5	6.3	326	6.3	6.2	55	8.9	7.2
14. AGE									
00-04 YEARS	19	2.6	2.9	16	2.5	2.4	3	2.9	6.3
05-14 YEARS	7	0.4	0.5	5	0.3	0.4	2	0.6	0.8
15-24 YEARS	26	1.3	1.5	24	1.4	1.7	2	0.8	0.6
25-34 YEARS	30	1.6	1.4	25	1.5	1.3	5	2.6	2.7
35-44 YEARS	29	1.9	2.3	22	1.6	2.0	7	5.4	6.1
45-54 YEARS	71	5.6	5.8	58	5.0	5.4	13	13.1	10.7
55-64 YEARS	163	14.6	13.4	146	14.3	12.9	17	18.7	18.7
65 AND OVER	511	44.8	46.2	459	43.9	45.7	52	54.3	51.8
15. PLACE OF DEATH									
HOSPITAL	609	71.1	65.4	530	70.2	65.3	79	78.2	66.3
OTHER INSTITUTION	133	15.5	18.8	121	16.0	19.9	12	11.9	18.1
HOME OR NON-INSTITUTION	114	13.3	15.8	104	13.8	15.8	10	9.9	15.6
16. OCCURRENCE									
TOTAL	621	1.3	1.2	544	1.5	1.4	77	0.6	0.6
TO RESIDENTS	560	90.2	88.8	490	90.1	88.7	70	90.9	89.8
OTHER EVENTS									
17. MARRIAGES	850	7.5	7.2						
18. DIVORCES AND ANNULMENTS	446	3.9	4.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

DAVIE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	26532	0.4	0.4	23727	0.5	0.5	2805	0.2	0.2
MALES	13080	49.3	48.2	11721	49.4	48.3	1359	48.4	47.7
FEMALES	13452	50.7	51.8	12006	50.6	51.7	1446	51.6	52.3
2. NATURAL INCREASE	92	3.5	4.6	75	3.2	4.4	17	6.1	6.0
LIVE BIRTHS									
3. TOTAL	278	10.5	12.3	239	10.1	12.0	39	13.9	14.9
MALES	128	4.8	6.3	111	4.7	6.2	17	6.1	6.9
FEMALES	150	5.7	6.0	128	5.4	5.8	22	7.8	8.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	275	98.9	99.6	237	99.2	99.7	38	97.4	98.8
PHYSICIAN NOT IN HOSPITAL	1	0.4	0.1	1	0.4	0.1	0	0.0	0.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	9	3.2	5.5	7	2.9	5.1	2	5.1	8.7
6. OUT OF WEDLOCK	33	11.9	10.9	14	5.9	5.2	19	48.7	53.8
7. OCCURRENCE									
TOTAL	111	0.1	0.1	94	0.2	0.2	17	0.1	0.1
TO RESIDENTS	96	86.5	84.4	80	85.1	83.0	16	94.1	91.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	17.9	13.0	5	20.7	8.6	0	0.0	45.5
9. FETAL DEATHS	2	7.1	5.5	2	8.3	3.9	0	0.0	17.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	2	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	0.0	0	0.0	0.0	0		0.0
10. NEONATAL (UNDER 28 DAYS)	3	10.8	7.6	3	12.6	4.7	0	0.0	28.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.6	2.1	0	0.0	0.8	1	25.6	11.9
12. INFANT DEATHS (UNDER 1 YEAR)	4	14.4	9.6	3	12.6	5.5	1	25.6	40.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	186	7.0	7.7	164	6.9	7.5	22	7.8	8.9
MALES	104	8.0	9.3	92	7.8	9.1	12	8.8	11.2
FEMALES	82	6.1	6.2	72	6.0	6.1	10	6.9	6.8
14. AGE									
00-04 YEARS	4	2.3	1.9	3	1.9	1.2	1	5.3	7.1
05-14 YEARS	4	0.9	0.5	2	0.5	0.5	2	4.0	0.9
15-24 YEARS	2	0.5	0.9	2	0.6	0.9	0	0.0	0.9
25-34 YEARS	3	0.7	1.2	2	0.5	1.2	1	2.3	2.0
35-44 YEARS	5	1.4	1.5	5	1.5	1.1	0	0.0	6.5
45-54 YEARS	15	5.1	5.2	14	5.2	4.9	1	3.7	8.0
55-64 YEARS	29	11.3	12.8	24	10.2	12.5	5	22.8	15.9
65 AND OVER	124	45.7	46.9	112	45.8	47.2	12	44.0	43.5
15. PLACE OF DEATH									
HOSPITAL	133	71.5	73.5	113	68.9	72.5	20	90.9	81.6
OTHER INSTITUTION	25	13.4	15.0	23	14.0	15.3	2	9.1	12.6
HOME OR NON-INSTITUTION	28	15.1	11.4	28	17.1	12.1	0	0.0	5.8
16. OCCURRENCE									
TOTAL	145	0.3	0.3	134	0.4	0.4	11	0.1	0.1
TO RESIDENTS	119	82.1	83.5	110	82.1	83.0	9	81.8	87.9
OTHER EVENTS									
17. MARRIAGES	198	7.5	7.7						
18. DIVORCES AND ANNULMENTS	84	3.2	3.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

DUPLIN COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	40854	0.7	0.7	26741	0.6	0.6	14113	1.0	1.0
MALES	19573	47.9	47.6	13027	48.7	48.3	6546	46.4	46.3
FEMALES	21281	52.1	52.4	13714	51.3	51.7	7567	53.6	53.7
2. NATURAL INCREASE	124	3.0	4.5	59	2.2	2.4	65	4.6	8.7
LIVE BIRTHS									
3. TOTAL	537	13.1	14.3	319	11.9	12.1	218	15.4	18.5
MALES	262	6.4	7.3	167	6.2	6.3	95	6.7	9.2
FEMALES	275	6.7	7.0	152	5.7	5.8	123	8.7	9.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	525	97.8	85.9	313	98.1	91.3	212	97.2	79.0
PHYSICIAN NOT IN HOSPITAL	9	1.7	13.7	6	1.9	8.6	3	1.4	20.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	53	9.9	8.0	24	7.5	6.1	29	13.3	10.3
6. OUT OF WEDLOCK	123	22.9	22.8	12	3.8	4.9	111	50.9	45.5
7. OCCURRENCE									
TOTAL	116	0.1	0.2	43	0.1	0.1	73	0.3	0.4
TO RESIDENTS	105	90.5	78.0	37	86.0	73.3	68	93.2	80.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	13	24.0	22.6	6	18.6	14.2	7	32.0	33.4
9. FETAL DEATHS	5	9.2	12.7	4	12.4	9.2	1	4.6	17.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	80.0	89.2	4	100.0	93.3	0	0.0	86.4
PHYSICIAN NOT IN HOSPITAL	1	20.0	10.8	0	0.0	6.7	1	100.0	13.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	13.5	0	0.0	0.0	0	0.0	22.7
10. NEONATAL (UNDER 28 DAYS)	8	14.9	10.1	2	6.3	5.0	6	27.5	16.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	7.6	5.6	0	0.0	2.5	4	18.9	9.6
12. INFANT DEATHS (UNDER 1 YEAR)	12	22.3	15.6	2	6.3	7.5	10	45.9	26.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	413	10.1	9.7	260	9.7	9.7	153	10.8	9.9
MALES	222	11.3	11.7	141	10.8	11.4	81	12.4	12.4
FEMALES	191	9.0	8.0	119	8.7	8.1	72	9.5	7.7
14. AGE									
00-04 YEARS	14	4.6	3.7	4	2.3	2.0	10	8.0	6.2
05-14 YEARS	2	0.3	0.4	1	0.3	0.3	1	0.4	0.5
15-24 YEARS	9	1.3	1.4	6	1.4	1.4	3	1.1	1.4
25-34 YEARS	10	1.7	1.3	6	1.5	1.1	4	2.0	2.0
35-44 YEARS	24	5.1	3.3	14	4.1	2.5	10	7.6	5.7
45-54 YEARS	31	7.2	7.5	18	5.9	6.0	13	10.4	11.1
55-64 YEARS	60	14.4	17.6	35	12.2	15.7	25	19.4	22.3
65 AND OVER	263	53.7	51.5	176	51.8	52.4	87	58.1	49.6
15. PLACE OF DEATH									
HOSPITAL	260	63.0	59.5	160	61.5	60.4	100	65.4	57.8
OTHER INSTITUTION	60	14.5	18.7	41	15.8	18.6	19	12.4	18.8
HOME OR NON-INSTITUTION	93	22.5	21.8	59	22.7	21.0	34	22.2	23.4
16. OCCURRENCE									
TOTAL	277	0.6	0.5	167	0.4	0.5	110	0.9	0.8
TO RESIDENTS	252	91.0	89.0	151	90.4	88.8	101	91.8	89.2
OTHER EVENTS									
17. MARRIAGES	285	7.0	7.1						
18. DIVORCES AND ANNULMENTS	143	3.5	3.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

DURHAM COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	154783	2.6	2.6	95945	2.1	2.1	58838	4.1	4.1
MALES	72284	46.7	46.8	45746	47.7	48.1	26538	45.1	44.7
FEMALES	82499	53.3	53.2	50199	52.3	51.9	32300	54.9	55.3
2. NATURAL INCREASE	793	5.1	5.4	239	2.5	3.0	554	9.4	9.4
LIVE BIRTHS									
3. TOTAL	2072	13.4	13.9	1052	11.0	11.6	1020	17.3	17.8
MALES	1030	6.7	7.1	523	5.5	6.0	507	8.6	9.0
FEMALES	1042	6.7	6.8	529	5.5	5.6	513	8.7	8.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	2046	98.7	98.8	1030	97.9	98.2	1016	99.6	99.6
PHYSICIAN NOT IN HOSPITAL	4	0.2	0.1	3	0.3	0.1	1	0.1	0.2
#CERTIFIED NURSE MIDWIFE	17	0.8	0.6	15	1.4	1.0	2	0.2	0.1
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
5. PREMATURE BIRTHS	182	8.8	8.8	51	4.8	5.1	131	12.8	12.8
6. OUT OF WEDLOCK	569	27.5	26.2	45	4.3	4.3	524	51.4	49.9
7. OCCURRENCE									
TOTAL	3549	4.2	4.1	1950	3.4	3.3	1599	5.9	6.0
TO RESIDENTS	1981	55.8	56.3	996	51.1	54.2	985	61.6	58.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	42	20.1	22.2	16	15.1	15.2	26	25.2	29.8
9. FETAL DEATHS	21	10.0	12.0	8	7.5	7.6	13	12.6	16.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	19	90.5	98.4	8	100.0	100.0	11	84.6	97.6
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	10	47.6	45.6	1	12.5	14.6	9	69.2	60.7
10. NEONATAL (UNDER 28 DAYS)	21	10.1	10.4	8	7.6	7.6	13	12.7	13.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	2.4	3.5	2	1.9	2.3	3	3.0	4.9
12. INFANT DEATHS (UNDER 1 YEAR)	26	12.5	13.8	10	9.5	9.9	16	15.7	18.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1279	8.3	8.5	813	8.5	8.5	466	7.9	8.4
MALES	664	9.2	9.8	433	9.5	9.5	231	8.7	10.2
FEMALES	615	7.5	7.3	380	7.6	7.6	235	7.3	7.0
14. AGE									
00-04 YEARS	29	2.9	3.2	12	2.3	2.1	17	3.6	4.6
05-14 YEARS	4	0.2	0.3	1	0.1	0.3	3	0.3	0.2
15-24 YEARS	23	0.7	0.8	15	0.8	0.8	8	0.6	0.8
25-34 YEARS	28	1.0	1.2	14	0.8	0.8	14	1.3	1.9
35-44 YEARS	49	2.7	3.1	22	1.9	2.1	27	4.4	5.2
45-54 YEARS	87	6.2	7.1	47	4.9	5.5	40	9.0	10.6
55-64 YEARS	228	16.9	16.7	143	15.4	15.3	85	20.2	19.5
65 AND OVER	831	51.1	52.6	559	50.5	54.4	272	52.3	49.3
15. PLACE OF DEATH									
HOSPITAL	679	53.1	53.2	428	52.6	53.4	251	53.9	53.0
OTHER INSTITUTION	329	25.7	23.9	224	27.6	25.4	105	22.5	21.3
HOME OR NON-INSTITUTION	271	21.2	22.9	161	19.8	21.2	110	23.6	25.7
16. OCCURRENCE									
TOTAL	2568	5.2	5.2	1723	4.6	4.6	845	6.9	6.9
TO RESIDENTS	1213	47.2	47.1	770	44.7	44.3	443	52.4	52.6
OTHER EVENTS									
17. MARRIAGES	1326	8.6	8.1						
18. DIVORCES AND ANNULMENTS	925	6.0	5.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

EDGECOMBE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	56125	0.9	1.0	27191	0.6	0.6	28934	2.0	2.0
MALES	26197	46.7	46.8	12993	47.8	48.1	13204	45.6	45.5
FEMALES	29928	53.3	53.2	14198	52.2	51.9	15730	54.4	54.5
2. NATURAL INCREASE	301	5.4	7.3	25	0.9	3.4	276	9.5	11.2
LIVE BIRTHS									
3. TOTAL	843	15.0	16.5	307	11.3	12.7	536	18.5	20.4
MALES	434	7.7	8.3	147	5.4	6.4	287	9.9	10.3
FEMALES	409	7.3	8.2	160	5.9	6.3	249	8.6	10.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	841	99.8	99.8	306	99.7	99.9	535	99.8	99.8
PHYSICIAN NOT IN HOSPITAL	2	0.2	0.1	1	0.3	0.1	1	0.2	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	74	8.8	10.4	12	3.9	5.7	62	11.6	13.4
6. OUT OF WEDLOCK	308	36.5	33.9	22	7.2	5.7	286	53.4	51.8
7. OCCURRENCE									
TOTAL	466	0.6	0.6	118	0.2	0.3	348	1.3	1.4
TO RESIDENTS	408	87.6	86.9	105	89.0	88.7	303	87.1	86.2
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	20	23.4	23.3	4	12.9	14.5	16	29.4	28.8
9. FETAL DEATHS	11	12.9	12.1	3	9.7	6.7	8	14.7	15.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	10	90.9	96.4	3	100.0	100.0	7	87.5	95.5
PHYSICIAN NOT IN HOSPITAL	1	9.1	3.6	0	0.0	0.0	1	12.5	4.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	7	63.6	46.4	1	33.3	25.0	6	75.0	52.3
10. NEONATAL (UNDER 28 DAYS)	9	10.7	11.3	1	3.3	7.9	8	14.9	13.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	2.4	4.4	1	3.3	4.5	1	1.9	4.3
12. INFANT DEATHS (UNDER 1 YEAR)	11	13.0	15.7	2	6.5	12.4	9	16.8	17.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	542	9.7	9.2	282	10.4	9.2	260	9.0	9.2
MALES	315	12.0	11.4	159	12.2	10.8	156	11.6	12.1
FEMALES	227	7.6	7.3	123	8.7	7.8	104	6.6	6.8
14. AGE									
00-04 YEARS	16	3.7	4.2	5	2.9	3.6	11	4.2	4.6
05-14 YEARS	3	0.3	0.4	2	0.5	0.4	1	0.2	0.4
15-24 YEARS	9	0.9	0.8	3	0.7	0.8	6	1.0	0.8
25-34 YEARS	13	1.4	1.6	5	1.1	1.2	8	1.7	2.1
35-44 YEARS	23	3.8	3.6	8	2.4	1.8	15	5.6	6.4
45-54 YEARS	40	7.4	7.9	18	5.6	5.6	22	9.8	11.3
55-64 YEARS	117	22.4	20.0	60	20.0	17.9	57	25.7	22.9
65 AND OVER	321	53.5	52.1	181	53.4	50.4	140	53.5	54.3
15. PLACE OF DEATH									
HOSPITAL	402	74.2	74.7	209	74.1	73.8	193	74.2	75.7
OTHER INSTITUTION	62	11.4	12.6	35	12.4	13.5	27	10.4	11.7
HOME OR NON-INSTITUTION	78	14.4	12.7	38	13.5	12.7	40	15.4	12.6
16. OCCURRENCE									
TOTAL	384	0.8	0.7	204	0.5	0.5	180	1.5	1.4
TO RESIDENTS	315	82.0	83.3	173	84.8	85.2	142	78.9	81.1
OTHER EVENTS									
17. MARRIAGES	417	7.4	7.5						
18. DIVORCES AND ANNULMENTS	193	3.4	3.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

FORSYTH COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	246863	4.1	4.1	184126	4.1	4.1	62737	4.3	4.2
MALES	116558	47.2	46.8	87935	47.8	47.4	28623	45.6	44.7
FEMALES	130305	52.8	53.2	96191	52.2	52.6	34114	54.4	55.3
2. NATURAL INCREASE	1109	4.5	4.6	696	3.8	3.6	413	6.6	7.8
LIVE-BIRTHS									
3. TOTAL	3115	12.6	12.9	2134	11.6	11.3	981	15.6	17.8
MALES	1582	6.4	6.6	1108	6.0	5.9	474	7.6	9.0
FEMALES	1533	6.2	6.3	1026	5.6	5.5	507	8.1	8.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	3100	99.5	99.6	2120	99.3	99.6	980	99.9	99.7
PHYSICIAN NOT IN HOSPITAL	2	0.1	0.1	1	0.0	0.1	1	0.1	0.2
#CERTIFIED NURSE MIDWIFE	12	0.4	0.1	12	0.6	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	252	8.1	8.2	120	5.6	5.9	132	13.5	12.7
6. OUT OF WEDLOCK	647	20.8	21.5	129	6.0	5.5	518	52.8	53.3
7. OCCURRENCE									
TOTAL	4435	5.3	5.1	3309	5.8	5.5	1126	4.2	4.2
TO RESIDENTS	2960	66.7	67.3	1991	60.2	59.7	969	86.1	88.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	41	13.1	18.0	29	13.5	16.1	12	12.1	21.8
9. FETAL DEATHS	23	7.3	9.0	14	6.5	7.5	9	9.1	11.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	23	100.0	100.0	14	100.0	100.0	9	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	7	30.4	31.9	1	7.1	9.1	6	66.7	60.7
10. NEONATAL (UNDER 28 DAYS)	18	5.8	9.1	15	7.0	8.6	3	3.1	10.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	1.6	2.9	3	1.4	2.1	2	2.0	4.5
12. INFANT DEATHS (UNDER 1 YEAR)	23	7.4	12.0	18	8.4	10.7	5	5.1	14.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	2006	8.1	8.3	1438	7.8	7.7	568	9.1	10.0
MALES	1049	9.0	9.5	750	8.5	8.7	299	10.4	11.9
FEMALES	957	7.3	7.2	688	7.2	6.8	269	7.9	8.5
14. AGE									
00-04 YEARS	30	2.0	2.7	19	1.9	2.1	11	2.2	3.9
05-14 YEARS	13	0.4	0.3	11	0.5	0.3	2	0.2	0.3
15-24 YEARS	46	1.0	0.9	40	1.2	1.0	6	0.5	0.8
25-34 YEARS	53	1.2	1.3	26	0.8	1.0	27	2.5	2.6
35-44 YEARS	76	2.4	2.8	36	1.5	1.8	40	5.9	6.9
45-54 YEARS	167	6.1	6.7	101	4.6	5.3	66	12.8	13.1
55-64 YEARS	343	14.4	15.7	245	12.7	13.5	98	21.9	24.9
65 AND OVER	1278	48.9	52.5	960	47.0	50.8	318	55.8	58.1
15. PLACE OF DEATH									
HOSPITAL	1381	68.8	67.8	974	67.7	66.6	467	71.7	70.7
OTHER INSTITUTION	346	17.2	18.3	263	18.3	18.9	83	14.6	17.0
HOME OR NON-INSTITUTION	279	13.9	13.9	201	14.0	14.5	78	13.7	12.3
16. OCCURRENCE									
TOTAL	3022	6.1	6.1	2346	6.3	6.3	676	5.5	5.6
TO RESIDENTS	1851	61.3	61.7	1313	56.0	55.9	538	79.6	81.1
OTHER EVENTS									
17. MARRIAGES	2209	8.9	8.9						
18. DIVORCES AND ANNULMENTS	1630	6.6	6.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

FRANKLIN COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	30540	0.5	0.5	17944	0.4	0.4	12596	0.9	0.9
MALES	14693	48.1	47.4	8762	48.8	47.3	5931	47.1	47.4
FEMALES	15847	51.9	52.6	9182	51.2	52.7	6665	52.9	52.6
2. NATURAL INCREASE	26	0.9	1.6	-23	-1.3	-1.2	49	3.9	5.7
LIVE BIRTHS									
3. TOTAL	362	11.9	12.5	186	10.4	10.1	176	14.0	16.2
MALES	188	6.2	6.5	91	5.1	5.3	97	7.7	8.3
FEMALES	174	5.7	6.0	95	5.3	4.7	79	6.3	7.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	357	98.6	99.0	184	98.9	99.4	173	98.3	98.5
PHYSICIAN NOT IN HOSPITAL	3	0.8	0.9	0	0.0	0.3	3	1.7	1.4
#CERTIFIED NURSE MIDWIFE	2	0.6	0.1	2	1.1	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	25	6.9	8.9	7	3.8	6.4	18	10.2	11.1
6. OUT OF WEDLOCK	94	26.0	25.0	9	4.8	4.0	85	48.3	44.7
7. OCCURRENCE									
TOTAL	52	0.1	0.1	24	0.0	0.1	28	0.1	0.1
TO RESIDENTS	43	82.7	81.4	19	79.2	78.6	24	85.7	84.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	8.2	21.1	0	0.0	19.1	3	16.9	23.0
9. FETAL DEATHS	2	5.5	10.8	0	0.0	9.0	2	11.2	12.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	95.0	0		100.0	2	100.0	91.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	5.0	0		0.0	0	0.0	8.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	40.0	0		25.0	1	50.0	50.0
10. NEONATAL (UNDER 28 DAYS)	1	2.8	10.4	0	0.0	10.2	1	5.7	10.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.8	4.4	1	5.4	4.6	0	0.0	4.3
12. INFANT DEATHS (UNDER 1 YEAR)	2	5.5	14.8	1	5.4	14.8	1	5.7	14.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	336	11.0	10.9	209	11.6	11.2	127	10.1	10.5
MALES	196	13.3	13.7	124	14.2	13.8	72	12.1	13.6
FEMALES	140	8.8	8.5	85	9.3	9.0	55	8.3	7.7
14. AGE									
00-04 YEARS	6	3.0	4.0	1	1.0	2.9	5	5.3	5.1
05-14 YEARS	6	1.3	0.5	1	0.4	0.3	5	2.1	0.8
15-24 YEARS	7	1.3	1.5	3	1.0	1.4	4	1.5	1.7
25-34 YEARS	9	1.9	2.4	3	1.1	1.4	6	3.0	3.8
35-44 YEARS	15	4.3	3.9	7	3.2	2.9	8	6.3	5.9
45-54 YEARS	22	7.3	8.9	16	8.1	7.3	6	5.7	11.9
55-64 YEARS	57	18.3	17.3	35	16.8	16.5	22	21.4	19.2
65 AND OVER	214	52.3	51.5	143	51.9	51.6	71	53.1	51.3
15. PLACE OF DEATH									
HOSPITAL	215	64.0	62.9	140	67.0	66.7	75	59.1	57.0
OTHER INSTITUTION	48	14.3	13.7	34	16.3	13.9	14	11.0	13.4
HOME OR NON-INSTITUTION	73	21.7	23.3	35	16.7	19.4	38	29.9	29.6
16. OCCURRENCE									
TOTAL	237	0.5	0.5	151	0.4	0.4	86	0.7	0.8
TO RESIDENTS	210	88.6	89.2	132	87.4	88.1	78	90.7	90.9
OTHER EVENTS									
17. MARRIAGES	211	6.9	7.4						
18. DIVORCES AND ANNULMENTS	112	3.7	3.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GASTON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	164222	2.8	2.8	143130	3.2	3.2	21092	1.5	1.5
MALES	78664	47.9	47.9	69001	48.2	48.2	9663	45.8	45.5
FEMALES	85558	52.1	52.1	74129	51.8	51.8	11429	54.2	54.5
2. NATURAL INCREASE	992	6.0	6.0	735	5.1	5.3	257	12.2	10.9
LIVE BIRTHS									
3. TOTAL	2340	14.2	14.1	1898	13.3	13.2	442	21.0	20.6
MALES	1212	7.4	7.2	966	6.7	6.7	246	11.7	10.6
FEMALES	1128	6.9	6.9	932	6.5	6.5	196	9.3	10.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	2221	94.9	98.2	1816	95.7	98.5	405	91.6	96.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.1
#CERTIFIED NURSE MIDWIFE	110	4.7	1.5	77	4.1	1.3	33	7.5	2.5
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	175	7.5	7.6	132	7.0	6.7	43	9.7	11.4
6. OUT OF WEDLOCK	407	17.4	15.9	205	10.8	8.7	202	45.7	48.5
7. OCCURRENCE									
TOTAL	2041	2.4	2.4	1651	2.9	2.9	390	1.4	1.4
TO RESIDENTS	1766	86.5	86.6	1407	85.2	85.7	359	92.1	90.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	59	24.9	22.1	48	24.9	20.2	11	24.6	30.9
9. FETAL DEATHS	32	13.5	11.2	26	13.5	10.8	6	13.4	12.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	29	90.6	95.3	23	88.5	95.0	6	100.0	96.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.6	0	0.0	1.0	0	0.0	3.8
#CERTIFIED NURSE MIDWIFE	2	6.3	1.6	2	7.7	2.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	7	21.9	22.0	4	15.4	14.9	3	50.0	50.0
10. NEONATAL (UNDER 28 DAYS)	27	11.5	11.1	22	11.6	9.4	5	11.3	18.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	7	3.0	4.8	5	2.7	3.9	2	4.6	8.5
12. INFANT DEATHS (UNDER 1 YEAR)	34	14.5	15.8	27	14.2	13.4	7	15.8	26.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1348	8.2	8.2	1163	8.1	7.9	185	8.8	9.7
MALES	747	9.5	9.7	650	9.4	9.4	97	10.0	11.7
FEMALES	601	7.0	6.7	513	6.9	6.5	88	7.7	8.1
14. AGE									
00-04 YEARS	41	3.7	3.5	31	3.4	2.9	10	5.5	6.7
05-14 YEARS	8	0.3	0.3	8	0.3	0.2	0	0.0	0.3
15-24 YEARS	38	1.4	1.5	32	1.3	1.5	6	1.4	1.6
25-34 YEARS	45	1.7	1.7	29	1.3	1.5	16	4.5	3.3
35-44 YEARS	50	2.5	2.6	46	2.5	2.3	4	1.9	5.0
45-54 YEARS	113	6.4	6.3	94	5.8	5.8	19	11.6	11.6
55-64 YEARS	253	15.7	15.9	216	14.9	15.0	37	23.2	23.0
65 AND OVER	800	46.8	47.6	707	46.5	46.9	93	49.3	52.7
15. PLACE OF DEATH									
HOSPITAL	946	70.2	70.2	819	70.4	70.4	127	68.6	69.1
OTHER INSTITUTION	153	11.4	13.5	132	11.3	13.8	21	11.4	11.8
HOME OR NON-INSTITUTION	249	18.5	16.3	212	18.2	15.8	37	20.0	19.1
16. OCCURRENCE									
TOTAL	1043	2.1	2.1	892	2.4	2.3	151	1.2	1.3
TO RESIDENTS	962	92.2	90.9	826	92.6	91.0	136	90.1	90.3
OTHER EVENTS									
17. MARRIAGES	868	5.3	5.1						
18. DIVORCES AND ANNULMENTS	944	5.7	5.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GATES COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	8970	0.2	0.2	4240	0.1	0.1	4730	0.3	0.3
MALES	4479	49.9	49.9	2102	49.6	48.8	2377	50.3	50.9
FEMALES	4491	50.1	50.1	2138	50.4	51.2	2353	49.7	49.1
2. NATURAL INCREASE	33	3.7	2.7	-12	-2.8	-1.4	45	9.5	6.6
LIVE BIRTHS									
3. TOTAL	112	12.5	13.1	36	8.5	10.2	76	16.1	15.8
MALES	60	6.7	6.8	25	5.9	5.5	35	7.4	7.9
FEMALES	52	5.8	6.3	11	2.6	4.6	41	8.7	7.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	106	94.6	98.2	30	83.3	96.7	76	100.0	99.1
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.5	0	0.0	0.0	0	0.0	0.9
#CERTIFIED NURSE MIDWIFE	5	4.5	1.1	5	13.9	2.8	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	14	12.5	10.9	1	2.8	7.9	13	17.1	12.8
6. OUT OF WEDLOCK	29	25.9	25.7	1	2.8	4.2	28	36.8	39.1
7. OCCURRENCE									
TOTAL	1	0.0	0.0	1	0.0	0.0	0	0.0	0.0
TO RESIDENTS	1	100.0	100.0	1	100.0	100.0	0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	8.8	15.9	0	0.0	18.6	1	13.0	14.3
9. FETAL DEATHS	1	8.8	8.8	0	0.0	0.0	1	13.0	14.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	0			1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0			0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0			0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0			0	0.0	0.0
OUT OF WEDLOCK	0	0.0	80.0	0			0	0.0	80.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	7.1	0	0.0	18.6	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	8.9	9.0	0	0.0	4.7	1	13.2	11.6
12. INFANT DEATHS (UNDER 1 YEAR)	1	8.9	16.1	0	0.0	23.3	1	13.2	11.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	79	8.8	10.4	48	11.3	11.6	31	6.6	9.2
MALES	48	10.7	12.3	30	14.3	13.9	18	7.6	10.7
FEMALES	31	6.9	8.5	18	8.4	9.4	13	5.5	7.7
14. AGE									
00-04 YEARS	1	1.8	3.2	0	0.0	4.7	1	2.9	2.3
05-14 YEARS	1	0.7	0.4	1	1.8	0.8	0	0.0	0.2
15-24 YEARS	3	1.9	2.0	1	1.7	2.6	2	2.1	1.6
25-34 YEARS	0	0.0	1.1	0	0.0	0.7	0	0.0	1.5
35-44 YEARS	3	3.1	3.0	2	4.3	1.8	1	2.0	4.1
45-54 YEARS	4	4.2	7.3	1	1.9	6.0	3	6.9	8.9
55-64 YEARS	14	14.3	13.0	5	9.5	8.8	9	19.7	18.7
65 AND OVER	53	42.1	50.0	38	49.2	48.7	15	30.8	52.2
15. PLACE OF DEATH									
HOSPITAL	47	59.5	66.7	28	58.3	68.9	19	61.3	64.2
OTHER INSTITUTION	6	7.6	12.4	3	6.3	10.2	3	9.7	14.9
HOME OR NON-INSTITUTION	26	32.9	20.9	17	35.4	20.9	9	29.0	20.9
16. OCCURRENCE									
TOTAL	30	0.1	0.0	20	0.1	0.0	10	0.1	0.1
TO RESIDENTS	25	83.3	84.5	16	80.0	81.0	9	90.0	88.7
OTHER EVENTS									
17. MARRIAGES	44	4.9	5.4						
18. DIVORCES AND ANNULMENTS	33	3.7	2.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GRAHAM COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	7052	0.1	0.1	6661	0.1	0.2	391	0.0	0.0
MALES	3512	49.8	49.7	3319	49.8	50.0	193	49.4	43.9
FEMALES	3540	50.2	50.3	3342	50.2	50.0	198	50.6	56.1
2. NATURAL INCREASE	49	6.9	6.5	45	6.8	5.7	4	10.2	19.5
LIVE BIRTHS									
3. TOTAL	104	14.7	15.0	96	14.4	14.3	8	20.5	26.8
MALES	48	6.8	7.7	43	6.5	7.3	5	12.8	14.2
FEMALES	56	7.9	7.3	53	8.0	7.0	3	7.7	12.6
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	95	91.3	98.1	87	90.6	97.9	8	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	9	8.7	1.9	9	9.4	2.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	5	4.8	6.3	5	5.2	6.7	0	0.0	2.0
6. OUT OF WEDLOCK	10	9.6	9.9	8	8.3	9.0	2	25.0	17.6
7. OCCURRENCE									
TOTAL	11	0.0	0.0	11	0.0	0.0	0	0.0	0.0
TO RESIDENTS	9	81.8	83.3	9	81.8	83.3	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	9.5	18.7	1	10.3	18.7	0	0.0	19.2
9. FETAL DEATHS	1	9.5	13.1	1	10.3	12.4	0	0.0	19.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	1	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	0.0	0	0.0	0.0	0		0.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	5.7	0	0.0	6.3	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	9.6	3.8	1	10.4	4.2	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	1	9.6	9.5	1	10.4	10.5	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	55	7.8	8.5	51	7.7	8.6	4	10.2	7.4
MALES	32	9.1	10.5	31	9.3	10.7	1	5.2	7.2
FEMALES	23	6.5	6.5	20	6.0	6.4	3	15.2	7.5
14. AGE									
00-04 YEARS	1	1.9	2.4	1	2.1	2.2	0	0.0	5.1
05-14 YEARS	0	0.0	0.2	0	0.0	0.2	0	0.0	0.0
15-24 YEARS	0	0.0	0.9	0	0.0	1.0	0	0.0	0.0
25-34 YEARS	0	0.0	2.0	0	0.0	2.1	0	0.0	0.0
35-44 YEARS	2	2.3	2.7	1	1.2	2.6	1	27.8	5.0
45-54 YEARS	4	5.8	7.1	3	4.6	6.8	1	34.5	12.3
55-64 YEARS	6	8.1	14.2	6	8.4	13.7	0	0.0	25.2
65 AND OVER	42	45.9	40.0	40	45.0	40.3	2	76.9	32.4
15. PLACE OF DEATH									
HOSPITAL	34	61.8	57.9	32	62.7	57.9	2	50.0	57.1
OTHER INSTITUTION	6	10.9	16.7	6	11.8	17.5	0	0.0	0.0
HOME OR NON-INSTITUTION	15	27.3	25.4	13	25.5	24.6	2	50.0	42.9
16. OCCURRENCE									
TOTAL	21	0.0	0.0	19	0.1	0.1	2	0.0	0.0
TO RESIDENTS	19	90.5	90.5	17	89.5	89.9	2	100.0	100.0
OTHER EVENTS									
17. MARRIAGES	96	13.6	11.0						
18. DIVORCES AND ANNULMENTS	38	5.4	4.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GRANVILLE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	34554	0.6	0.6	19179	0.4	0.4	15375	1.1	1.1
MALES	17172	49.7	49.4	9489	49.5	49.1	7683	50.0	49.8
FEMALES	17382	50.3	50.6	9690	50.5	50.9	7692	50.0	50.2
2. NATURAL INCREASE	103	3.0	3.0	28	1.5	1.0	75	4.9	5.7
LIVE BIRTHS									
3. TOTAL	441	12.8	12.5	210	10.9	10.5	231	15.0	15.2
MALES	215	6.2	6.5	101	5.3	5.4	114	7.4	8.0
FEMALES	226	6.5	6.0	109	5.7	5.1	117	7.6	7.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	438	99.3	99.3	208	99.0	99.4	230	99.6	99.2
PHYSICIAN NOT IN HOSPITAL	2	0.5	0.3	1	0.5	0.3	1	0.4	0.4
#CERTIFIED NURSE MIDWIFE	1	0.2	0.1	1	0.5	0.3	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.0	0	0.0	0.4
5. PREMATURE BIRTHS	44	10.0	9.9	11	5.2	5.6	33	14.3	13.9
6. OUT OF WEDLOCK	108	24.5	24.0	11	5.2	4.7	97	42.0	41.7
7. OCCURRENCE									
TOTAL	127	0.2	0.1	43	0.1	0.1	84	0.3	0.2
TO RESIDENTS	109	85.8	88.1	33	76.7	80.7	76	90.5	92.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	13	29.1	21.4	3	14.3	12.9	10	42.2	29.0
9. FETAL DEATHS	6	13.4	11.9	0	0.0	5.0	6	25.3	18.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	6	100.0	100.0	0		100.0	6	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	4	66.7	44.0	0		0.0	4	66.7	55.0
10. NEONATAL (UNDER 28 DAYS)	7	15.9	9.6	3	14.3	8.0	4	17.3	11.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	4.8	0	0.0	3.0	0	0.0	6.5
12. INFANT DEATHS (UNDER 1 YEAR)	7	15.9	14.4	3	14.3	11.0	4	17.3	17.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	338	9.8	9.5	182	9.5	9.5	156	10.1	9.5
MALES	187	10.9	11.1	105	11.1	11.4	82	10.7	10.8
FEMALES	151	8.7	7.9	77	7.9	7.7	74	9.6	8.2
14. AGE									
00-04 YEARS	7	3.5	3.4	3	3.0	2.3	4	3.9	4.3
05-14 YEARS	2	0.4	0.3	1	0.4	0.4	1	0.4	0.3
15-24 YEARS	6	1.0	1.5	4	1.3	1.3	2	0.6	1.6
25-34 YEARS	13	2.4	2.0	3	1.0	1.1	10	4.2	3.3
35-44 YEARS	15	3.5	3.9	4	1.5	3.1	11	6.3	5.2
45-54 YEARS	20	5.3	7.3	10	4.4	5.7	10	6.9	9.9
55-64 YEARS	66	19.0	15.4	31	14.6	13.5	35	25.8	18.4
65 AND OVER	209	52.3	54.5	126	50.6	55.7	83	54.9	52.7
15. PLACE OF DEATH									
HOSPITAL	201	59.5	62.0	113	62.1	63.9	88	56.4	59.5
OTHER INSTITUTION	73	21.6	19.5	37	20.3	19.2	36	23.1	19.9
HOME OR NON-INSTITUTION	64	18.9	18.5	32	17.6	17.0	32	20.5	20.5
16. OCCURRENCE									
TOTAL	289	0.6	0.5	162	0.4	0.4	127	1.0	0.8
TO RESIDENTS	216	74.7	77.2	116	71.6	75.4	100	78.7	79.8
OTHER EVENTS									
17. MARRIAGES	247	7.1	6.8						
18. DIVORCES AND ANNULMENTS	84	2.4	2.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GREENE COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	16078	0.3	0.3	8787	0.2	0.2	7291	0.5	0.5
MALES	7849	48.8	48.2	4335	49.3	48.5	3514	48.2	47.7
FEMALES	8229	51.2	51.8	4452	50.7	51.5	3777	51.8	52.3
2. NATURAL INCREASE	99	6.2	6.6	14	1.6	1.6	85	11.7	12.7
LIVE BIRTHS									
3. TOTAL	208	12.9	14.6	86	9.8	10.8	122	16.7	19.3
MALES	108	6.7	7.6	44	5.0	6.0	64	8.8	9.5
FEMALES	100	6.2	7.0	42	4.8	4.8	58	8.0	9.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	178	85.6	94.3	81	94.2	97.2	97	79.5	92.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.0	0	0.0	0.1
#CERTIFIED NURSE MIDWIFE	30	14.4	4.5	5	5.8	2.4	25	20.5	6.0
PERMITTED MIDWIFE	0	0.0	1.1	0	0.0	0.4	0	0.0	1.5
5. PREMATURE BIRTHS	24	11.5	10.1	5	5.8	6.3	19	15.6	12.7
6. OUT OF WEDLOCK	63	30.3	30.8	8	9.3	3.5	55	45.1	49.6
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0			0			0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	37.7	17.6	2	23.3	8.7	6	47.6	23.7
9. FETAL DEATHS	4	18.9	7.0	0	0.0	2.2	4	31.7	10.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	0		100.0	4	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	3	75.0	50.0	0		0.0	3	75.0	57.1
10. NEONATAL (UNDER 28 DAYS)	4	19.2	10.6	2	23.3	6.5	2	16.4	13.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.9	10.8	1	11.9	6.6	0	0.0	13.7
12. INFANT DEATHS (UNDER 1 YEAR)	5	24.0	21.3	3	34.9	13.0	2	16.4	27.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	109	6.8	8.0	72	8.2	9.2	37	5.1	6.6
MALES	65	8.3	10.3	39	9.0	11.5	26	7.4	8.7
FEMALES	44	5.3	6.0	33	7.4	7.0	11	2.9	4.7
14. AGE									
00-04 YEARS	5	4.0	4.1	3	5.6	2.6	2	2.8	5.2
05-14 YEARS	0	0.0	0.1	0	0.0	0.3	0	0.0	0.0
15-24 YEARS	1	0.3	1.2	1	0.7	1.1	0	0.0	1.2
25-34 YEARS	2	0.8	1.7	0	0.0	1.2	2	1.8	2.3
35-44 YEARS	1	0.6	3.3	0	0.0	2.5	1	1.5	4.9
45-54 YEARS	7	4.4	5.4	3	2.8	4.4	4	7.5	7.4
55-64 YEARS	25	16.2	17.2	11	11.1	14.7	14	25.3	21.8
65 AND OVER	68	42.9	48.3	54	51.4	50.8	14	26.2	42.7
15. PLACE OF DEATH									
HOSPITAL	71	65.1	60.4	50	69.4	64.6	21	56.8	53.1
OTHER INSTITUTION	12	11.0	15.8	10	13.9	15.8	2	5.4	15.8
HOME OR NON-INSTITUTION	26	23.9	23.8	12	16.7	19.6	14	37.8	31.1
16. OCCURRENCE									
TOTAL	33	0.1	0.1	16	0.0	0.1	17	0.1	0.2
TO RESIDENTS	29	87.9	84.1	14	87.5	85.2	15	88.2	83.0
OTHER EVENTS									
17. MARRIAGES	120	7.5	7.4						
18. DIVORCES AND ANNULMENTS	40	2.5	2.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GUILFORD COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	317913	5.3	5.4	233590	5.2	5.3	84323	5.8	5.8
MALES	150121	47.2	46.7	110922	47.5	47.0	39199	46.5	46.1
FEMALES	167792	52.8	53.3	122668	52.5	53.0	45124	53.5	53.9
2. NATURAL INCREASE	1545	4.9	5.2	755	3.2	3.3	790	9.4	10.7
LIVE BIRTHS									
3. TOTAL	4114	12.9	13.3	2719	11.6	11.6	1395	16.5	18.3
MALES	2093	6.6	6.8	1368	5.9	5.9	725	8.6	9.4
FEMALES	2021	6.4	6.5	1351	5.8	5.7	670	7.9	8.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	4089	99.4	99.6	2702	99.4	99.6	1387	99.4	99.5
PHYSICIAN NOT IN HOSPITAL	6	0.1	0.2	0	0.0	0.1	6	0.4	0.3
#CERTIFIED NURSE MIDWIFE	13	0.3	0.1	13	0.5	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	331	8.0	8.0	179	6.6	6.1	152	10.9	11.4
6. OUT OF WEDLOCK	824	20.0	19.4	157	5.8	5.5	667	47.8	45.6
7. OCCURRENCE									
TOTAL	5228	6.2	6.1	3798	6.6	6.5	1430	5.3	5.3
TO RESIDENTS	3922	75.0	76.3	2580	67.9	68.9	1342	93.8	95.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	75	18.1	19.2	40	14.6	14.2	35	24.7	28.3
9. FETAL DEATHS	39	9.4	9.9	17	6.2	6.1	22	15.5	17.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	39	100.0	99.5	17	100.0	100.0	22	100.0	99.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.5	0	0.0	0.0	0	0.0	0.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	15	38.5	35.3	1	5.9	8.4	14	63.6	53.2
10. NEONATAL (UNDER 28 DAYS)	36	8.8	9.3	23	8.5	8.2	13	9.3	11.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	22	5.4	4.2	15	5.6	3.6	7	5.1	5.2
12. INFANT DEATHS (UNDER 1 YEAR)	58	14.1	13.4	38	14.0	11.7	20	14.3	16.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	2569	8.1	8.1	1964	8.4	8.3	605	7.2	7.5
MALES	1330	8.9	9.4	1013	9.1	9.6	317	8.1	9.0
FEMALES	1239	7.4	6.9	951	7.8	7.1	288	6.4	6.3
14. AGE									
00-04 YEARS	72	3.7	3.1	48	3.7	2.7	24	3.6	4.2
05-14 YEARS	9	0.2	0.2	6	0.2	0.2	3	0.2	0.3
15-24 YEARS	47	0.8	0.9	36	0.9	1.0	11	0.5	0.7
25-34 YEARS	72	1.3	1.4	45	1.1	1.1	27	1.8	2.1
35-44 YEARS	124	3.1	2.9	81	2.7	2.1	43	4.7	5.6
45-54 YEARS	198	5.9	6.5	133	4.9	5.6	65	9.8	11.0
55-64 YEARS	417	13.9	15.3	310	12.6	13.9	107	19.9	21.9
65 AND OVER	1630	49.4	50.8	1305	48.1	50.1	325	55.5	53.7
15. PLACE OF DEATH									
HOSPITAL	1647	64.1	60.3	1243	63.3	59.3	404	66.8	63.7
OTHER INSTITUTION	460	17.9	20.0	380	19.3	21.5	80	13.2	15.1
HOME OR NON-INSTITUTION	462	18.0	19.7	341	17.4	19.2	121	20.0	21.3
16. OCCURRENCE									
TOTAL	2867	5.8	5.7	2246	6.0	6.0	621	5.0	5.0
TO RESIDENTS	2332	81.3	81.4	1773	78.9	79.2	559	90.0	89.3
OTHER EVENTS									
17. MARRIAGES	2969	9.3	9.5						
18. DIVORCES AND ANNULMENTS	2022	6.4	6.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HALIFAX COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	55432	0.9	1.0	27528	0.6	0.6	27904	1.9	2.1
MALES	26574	47.9	47.4	13234	48.1	48.1	13340	47.8	46.7
FEMALES	28858	52.1	52.6	14294	51.9	51.9	14564	52.2	53.3
2. NATURAL INCREASE	355	6.4	5.6	1	0.0	-0.4	354	12.7	11.6
LIVE BIRTHS									
3. TOTAL	952	17.2	16.3	302	11.0	11.1	650	23.3	21.5
MALES	493	8.9	8.3	160	5.8	5.5	333	11.9	11.1
FEMALES	459	8.3	8.0	142	5.2	5.6	317	11.4	10.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	903	94.9	93.8	297	98.3	98.8	606	93.2	91.3
PHYSICIAN NOT IN HOSPITAL	5	0.5	0.6	0	0.0	0.2	5	0.8	0.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	35	3.7	5.2	4	1.3	0.8	31	4.8	7.4
[illegible] PREMATURE BIRTHS	85	8.9	9.7	22	7.3	6.7	63	9.7	11.2
[illegible] OUT OF WEDLOCK	398	41.8	37.0	25	8.3	6.7	373	57.4	52.3
7. OCCURRENCE									
TOTAL	874	1.0	0.9	247	0.4	0.4	627	2.3	1.9
TO RESIDENTS	686	78.5	79.4	186	75.3	79.6	500	79.7	79.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	39	40.1	31.5	12	38.7	22.8	27	40.7	35.9
9. FETAL DEATHS	21	21.6	15.0	8	25.8	10.4	13	19.6	17.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	19	90.5	94.2	7	87.5	93.8	12	92.3	94.3
PHYSICIAN NOT IN HOSPITAL	1	4.8	2.9	0	0.0	0.0	1	7.7	3.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	9	42.9	43.5	1	12.5	6.3	8	61.5	54.7
10. NEONATAL (UNDER 28 DAYS)	18	18.9	16.8	4	13.2	12.5	14	21.5	18.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	7	7.5	9.0	0	0.0	4.0	7	11.0	11.5
12. INFANT DEATHS (UNDER 1 YEAR)	25	26.3	25.6	4	13.2	16.5	21	32.3	30.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	597	10.8	10.7	301	10.9	11.5	296	10.6	9.9
MALES	325	12.2	12.9	152	11.5	13.2	173	13.0	12.6
FEMALES	272	9.4	8.7	149	10.4	9.9	123	8.4	7.6
14. AGE									
00-04 YEARS	27	6.6	6.3	4	2.6	3.8	23	9.0	7.7
05-14 YEARS	3	0.3	0.3	0	0.0	0.2	3	0.5	0.5
15-24 YEARS	11	1.1	1.3	4	1.0	1.0	7	1.2	1.5
25-34 YEARS	13	1.6	2.0	3	0.8	1.1	10	2.4	3.1
35-44 YEARS	19	3.3	4.7	5	1.5	2.2	14	5.4	8.0
45-54 YEARS	48	8.5	8.3	14	4.3	6.7	34	14.2	10.6
55-64 YEARS	131	22.5	19.8	71	20.2	17.5	60	26.2	23.4
65 AND OVER	345	49.6	51.6	200	47.4	52.7	145	53.0	49.8
15. PLACE OF DEATH									
HOSPITAL	450	75.4	75.5	228	75.7	76.8	222	75.0	74.1
OTHER INSTITUTION	78	13.1	13.7	42	14.0	13.9	36	12.2	13.5
HOME OR NON-INSTITUTION	69	11.6	10.8	31	10.3	9.3	38	12.8	12.4
16. OCCURRENCE									
TOTAL	586	1.2	1.2	299	0.8	0.9	287	2.3	2.2
TO RESIDENTS	438	74.7	73.6	223	74.6	75.0	215	74.9	72.0
OTHER EVENTS									
17. MARRIAGES	438	7.9	7.8						
18. DIVORCES AND ANNULMENTS	198	3.6	3.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HARNETT COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	60355	1.0	1.0	45497	1.0	1.0	14858	1.0	0.9
MALES	29496	48.9	49.0	22298	49.0	49.3	7198	48.4	48.2
FEMALES	30859	51.1	51.0	23199	51.0	50.7	7660	51.6	51.8
2. NATURAL INCREASE	379	6.3	7.6	233	5.1	6.5	146	9.8	11.4
LIVE BIRTHS									
3. TOTAL	904	15.0	16.6	626	13.8	15.1	278	18.7	21.7
MALES	429	7.1	8.5	286	6.3	7.7	143	9.6	11.5
FEMALES	475	7.9	8.0	340	7.5	7.4	135	9.1	10.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	883	97.7	99.2	617	98.6	99.5	266	95.7	98.5
PHYSICIAN NOT IN HOSPITAL	3	0.3	0.2	1	0.2	0.1	2	0.7	0.4
#CERTIFIED NURSE MIDWIFE	11	1.2	0.3	5	0.8	0.2	6	2.2	0.4
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.1
5. PREMATURE BIRTHS	80	8.8	7.9	44	7.0	6.2	36	12.9	12.2
6. OUT OF WEDLOCK	172	19.0	16.0	33	5.3	4.3	139	50.0	44.8
7. OCCURRENCE									
TOTAL	126	0.1	0.2	74	0.1	0.2	52	0.2	0.2
TO RESIDENTS	91	72.2	71.6	49	66.2	66.2	42	80.8	82.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	16	17.5	19.0	7	11.1	15.3	9	31.7	27.9
9. FETAL DEATHS	12	13.1	10.8	6	9.5	8.5	6	21.1	16.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	12	100.0	100.0	6	100.0	100.0	6	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	25.0	25.0	0	0.0	3.4	3	50.0	52.2
10. NEONATAL (UNDER 28 DAYS)	4	4.4	8.2	1	1.6	6.8	3	10.8	11.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	4.4	5.3	3	4.8	3.3	1	3.6	10.3
12. INFANT DEATHS (UNDER 1 YEAR)	8	8.8	13.5	4	6.4	10.1	4	14.4	21.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	525	8.7	9.0	393	8.6	8.6	132	8.9	10.3
MALES	306	10.4	10.7	230	10.3	10.1	76	10.6	12.8
FEMALES	219	7.1	7.3	163	7.0	7.1	56	7.3	7.9
14. AGE									
00-04 YEARS	10	2.2	3.8	6	1.8	3.0	4	2.9	5.9
05-14 YEARS	3	0.3	0.5	2	0.3	0.6	1	0.3	0.5
15-24 YEARS	16	1.3	1.5	12	1.3	1.2	4	1.1	2.3
25-34 YEARS	16	1.7	1.7	8	1.1	1.1	8	3.6	4.7
35-44 YEARS	19	2.8	3.9	12	2.2	2.8	7	5.3	9.2
45-54 YEARS	58	9.7	8.6	35	7.4	7.1	23	18.9	15.5
55-64 YEARS	86	15.9	16.4	61	14.0	14.7	25	23.7	24.1
65 AND OVER	317	50.9	52.3	257	51.6	51.6	60	48.3	55.3
15. PLACE OF DEATH									
HOSPITAL	356	67.8	65.1	273	69.5	67.2	83	62.9	58.9
OTHER INSTITUTION	100	19.0	18.6	75	19.1	17.8	25	18.9	20.9
HOME OR NON-INSTITUTION	69	13.1	16.3	45	11.5	15.0	24	18.2	20.2
16. OCCURRENCE									
TOTAL	413	0.8	0.9	304	0.8	0.9	109	0.9	0.9
TO RESIDENTS	305	73.8	73.0	223	73.4	72.0	82	75.2	76.1
OTHER EVENTS									
17. MARRIAGES	319	5.3	5.1						
18. DIVORCES AND ANNULMENTS	283	4.7	4.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HAYWOOD COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	46915	0.8	0.8	45953	1.0	1.0	962	0.1	0.1
MALES	22710	48.4	48.2	22236	48.4	48.2	474	49.3	47.3
FEMALES	24205	51.6	51.8	23717	51.6	51.8	488	50.7	52.7
2. NATURAL INCREASE	56	1.2	1.5	54	1.2	1.5	2	2.1	3.0
LIVE BIRTHS									
3. TOTAL	499	10.6	10.9	486	10.6	10.8	13	13.5	14.8
MALES	265	5.6	5.6	258	5.6	5.6	7	7.3	6.3
FEMALES	234	5.0	5.3	228	5.0	5.2	6	6.2	8.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	493	98.8	99.3	480	98.8	99.3	13	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	2	0.4	0.1	2	0.4	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	37	7.4	7.0	35	7.2	6.7	2	15.4	16.4
6. OUT OF WEDLOCK	60	12.0	9.0	54	11.1	8.5	6	46.2	24.7
7. OCCURRENCE									
TOTAL	358	0.4	0.4	347	0.6	0.6	11	0.0	0.0
TO RESIDENTS	341	95.3	95.3	331	95.4	95.3	10	90.9	92.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	13.9	22.3	7	14.3	22.2	0	0.0	27.0
9. FETAL DEATHS	4	8.0	12.8	4	8.2	12.7	0	0.0	13.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	4	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	2	50.0	21.9	2	50.0	19.4	0		100.0
10. NEONATAL (UNDER 28 DAYS)	3	6.0	9.7	3	6.2	9.6	0	0.0	13.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	8.1	5.7	4	8.3	5.9	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	7	14.0	15.4	7	14.4	15.4	0	0.0	13.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	443	9.4	9.4	432	9.4	9.3	11	11.4	11.8
MALES	244	10.7	11.2	240	10.8	11.2	4	8.4	11.2
FEMALES	199	8.2	7.7	192	8.1	7.6	7	14.3	12.3
14. AGE									
00-04 YEARS	10	3.9	3.0	9	3.6	2.9	1	14.9	5.8
05-14 YEARS	1	0.1	0.4	1	0.2	0.5	0	0.0	0.0
15-24 YEARS	6	0.8	1.1	6	0.8	1.1	0	0.0	1.2
25-34 YEARS	8	1.2	1.1	8	1.2	1.1	0	0.0	1.4
35-44 YEARS	20	3.3	2.3	20	3.4	2.3	0	0.0	2.2
45-54 YEARS	24	4.4	5.7	24	4.5	5.6	0	0.0	13.5
55-64 YEARS	48	8.9	12.4	46	8.7	12.2	2	22.7	21.1
65 AND OVER	326	49.5	47.3	318	49.2	47.3	8	69.0	44.9
15. PLACE OF DEATH									
HOSPITAL	282	63.7	62.7	272	63.0	62.6	10	90.9	67.2
OTHER INSTITUTION	85	19.2	18.5	84	19.4	18.5	1	9.1	17.2
HOME OR NON-INSTITUTION	76	17.2	18.8	76	17.6	18.9	0	0.0	15.5
16. OCCURRENCE									
TOTAL	391	0.8	0.8	383	1.0	1.1	8	0.1	0.1
TO RESIDENTS	347	88.7	84.9	339	88.5	85.0	8	100.0	81.8
OTHER EVENTS									
17. MARRIAGES	425	9.1	9.3						
18. DIVORCES AND ANNULMENTS	243	5.2	4.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HENDERSON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	60606	1.0	1.0	58215	1.3	1.2	2391	0.2	0.2
MALES	29052	47.9	47.6	27887	47.9	47.6	1165	48.7	47.5
FEMALES	31554	52.1	52.4	30328	52.1	52.4	1226	51.3	52.5
2. NATURAL INCREASE	105	1.7	2.3	88	1.5	2.1	17	7.1	5.3
LIVE BIRTHS									
3. TOTAL	749	12.4	12.9	698	12.0	12.6	51	21.3	20.3
MALES	369	6.1	6.6	346	5.9	6.5	23	9.6	10.5
FEMALES	380	6.3	6.2	352	6.0	6.1	28	11.7	9.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	712	95.1	98.6	661	94.7	98.5	51	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.2	1	0.1	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	30	4.0	0.8	30	4.3	0.9	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	47	6.3	6.9	39	5.6	6.5	8	15.7	12.3
6. OUT OF WEDLOCK	71	9.5	8.7	48	6.9	6.0	23	45.1	49.1
7. OCCURRENCE									
TOTAL	802	0.9	0.9	737	1.3	1.3	65	0.2	0.2
TO RESIDENTS	635	79.2	77.5	585	79.4	77.6	50	76.9	75.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	10	13.3	14.3	10	14.2	14.4	0	0.0	13.6
9. FETAL DEATHS	4	5.3	6.7	4	5.7	6.9	0	0.0	4.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	4	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	2	50.0	20.8	2	50.0	21.7	0		0.0
10. NEONATAL (UNDER 28 DAYS)	6	8.0	7.6	6	8.6	7.5	0	0.0	9.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	6.7	4.3	5	7.2	4.3	0	0.0	4.6
12. INFANT DEATHS (UNDER 1 YEAR)	11	14.7	11.9	11	15.8	11.8	0	0.0	13.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	644	10.6	10.6	610	10.5	10.4	34	14.2	15.0
MALES	359	12.4	12.3	340	12.2	12.1	19	16.3	16.1
FEMALES	285	9.0	9.1	270	8.9	8.9	15	12.2	14.1
14. AGE									
00-04 YEARS	11	3.1	2.7	11	3.2	2.6	0	0.0	3.5
05-14 YEARS	4	0.5	0.3	4	0.5	0.3	0	0.0	0.0
15-24 YEARS	8	0.9	1.4	6	0.7	1.3	2	4.5	2.8
25-34 YEARS	13	1.5	1.2	12	1.5	1.1	1	2.8	2.6
35-44 YEARS	14	1.9	1.8	13	1.8	1.7	1	3.8	5.1
45-54 YEARS	35	5.8	5.7	31	5.3	5.3	4	19.1	19.9
55-64 YEARS	76	11.1	13.8	67	10.0	12.9	9	44.6	39.7
65 AND OVER	483	44.0	48.3	466	43.6	47.9	17	59.0	62.9
15. PLACE OF DEATH									
HOSPITAL	443	68.8	70.3	422	69.2	70.3	21	61.8	69.9
OTHER INSTITUTION	116	18.0	15.9	111	18.2	15.8	5	14.7	17.8
HOME OR NON-INSTITUTION	85	13.2	13.8	77	12.6	13.9	8	23.5	12.3
16. OCCURRENCE									
TOTAL	638	1.3	1.2	603	1.6	1.5	35	0.3	0.3
TO RESIDENTS	520	81.5	80.6	493	81.8	80.6	27	77.1	80.3
OTHER EVENTS									
17. MARRIAGES	437	7.2	7.4						
18. DIVORCES AND ANNULMENTS	276	4.6	4.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HERTFORD COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	23513	0.4	0.4	10276	0.2	0.3	13237	0.9	1.0
MALES	11254	47.9	47.2	4955	48.2	47.0	6299	47.6	47.4
FEMALES	12259	52.1	52.8	5321	51.8	53.0	6938	52.4	52.6
2. NATURAL INCREASE	113	4.8	6.2	0	0.0	2.2	113	8.5	9.6
LIVE BIRTHS									
3. TOTAL	354	15.1	15.4	113	11.0	11.0	241	18.2	19.2
MALES	171	7.3	7.7	56	5.4	5.9	115	8.7	9.3
FEMALES	183	7.8	7.7	57	5.5	5.1	126	9.5	9.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	349	98.6	97.6	112	99.1	98.7	237	98.3	97.0
PHYSICIAN NOT IN HOSPITAL	5	1.4	2.4	1	0.9	1.3	4	1.7	3.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	38	10.7	9.6	6	5.3	6.0	32	13.3	11.4
6. OUT OF WEDLOCK	102	28.8	29.2	3	2.7	3.3	99	41.1	42.0
7. OCCURRENCE									
TOTAL	570	0.7	0.8	121	0.2	0.3	449	1.7	1.7
TO RESIDENTS	292	51.2	49.3	75	62.0	51.1	217	48.3	48.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	10	28.0	30.5	4	35.1	24.1	6	24.7	33.7
9. FETAL DEATHS	3	8.4	17.4	1	8.8	11.3	2	8.2	20.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	97.0	1	100.0	100.0	2	100.0	96.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	3.0	0	0.0	0.0	0	0.0	3.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	33.3	42.4	0	0.0	0.0	1	50.0	53.8
10. NEONATAL (UNDER 28 DAYS)	7	19.8	13.4	3	26.5	13.0	4	16.6	13.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	5.8	8.1	0	0.0	1.6	2	8.4	11.3
12. INFANT DEATHS (UNDER 1 YEAR)	9	25.4	21.4	3	26.5	14.6	6	24.9	24.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	241	10.2	9.2	113	11.0	8.8	128	9.7	9.6
MALES	138	12.3	11.4	66	13.3	10.8	72	11.4	11.8
FEMALES	103	8.4	7.3	47	8.8	7.0	56	8.1	7.6
14. AGE									
00-04 YEARS	12	7.0	5.7	5	8.4	4.1	7	6.3	6.6
05-14 YEARS	0	0.0	0.5	0	0.0	0.3	0	0.0	0.7
15-24 YEARS	4	0.9	1.0	3	1.6	0.6	1	0.4	1.3
25-34 YEARS	5	1.5	1.4	0	0.0	0.7	5	2.7	2.1
35-44 YEARS	6	2.4	3.1	3	2.5	1.4	3	2.4	5.0
45-54 YEARS	18	7.5	6.4	5	4.5	5.2	13	11.1	7.6
55-64 YEARS	45	18.5	15.6	22	18.9	13.7	23	18.1	17.4
65 AND OVER	151	51.3	47.6	75	48.9	43.5	76	54.1	52.4
15. PLACE OF DEATH									
HOSPITAL	164	68.0	68.8	78	69.0	72.2	86	67.2	66.2
OTHER INSTITUTION	32	13.3	15.5	13	11.5	14.4	19	14.8	16.3
HOME OR NON-INSTITUTION	45	18.7	15.7	22	19.5	13.4	23	18.0	17.5
16. OCCURRENCE									
TOTAL	281	0.6	0.6	147	0.4	0.4	134	1.1	1.2
TO RESIDENTS	167	59.4	55.4	87	59.2	52.0	80	59.7	58.6
OTHER EVENTS									
17. MARRIAGES	174	7.4	6.9						
18. DIVORCES AND ANNULMENTS	106	4.5	3.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HOKE COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	21202	0.4	0.3	9135	0.2	0.2	12067	0.8	0.8
MALES	10427	49.2	50.3	4568	50.0	51.0	5859	48.6	49.8
FEMALES	10775	50.8	49.7	4567	50.0	49.0	6208	51.4	50.2
2. NATURAL INCREASE	198	9.3	10.7	45	4.9	4.5	153	12.7	15.6
LIVE BIRTHS									
3. TOTAL	331	15.6	18.0	99	10.8	12.4	232	19.2	22.5
MALES	182	8.6	9.2	48	5.3	6.2	134	11.1	11.5
FEMALES	149	7.0	8.8	51	5.6	6.2	98	8.1	11.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	328	99.1	99.5	99	100.0	99.3	229	98.7	99.6
PHYSICIAN NOT IN HOSPITAL	1	0.3	0.2	0	0.0	0.2	1	0.4	0.2
#CERTIFIED NURSE MIDWIFE	2	0.6	0.2	0	0.0	0.4	2	0.9	0.2
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	31	9.4	9.9	8	8.1	5.9	23	9.9	11.7
6. OUT OF WEDLOCK	123	37.2	36.5	6	6.1	5.2	117	50.4	50.3
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0		50.0	0		100.0	0		0.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	23.7	24.1	0	0.0	9.3	8	33.6	30.6
9. FETAL DEATHS	6	17.8	14.6	0	0.0	1.9	6	25.2	20.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	83.3	96.2	0		100.0	5	83.3	96.0
PHYSICIAN NOT IN HOSPITAL	1	16.7	3.8	0		0.0	1	16.7	4.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	4	66.7	57.7	0		0.0	4	66.7	60.0
10. NEONATAL (UNDER 28 DAYS)	2	6.0	9.7	0	0.0	7.4	2	8.6	10.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.0	8.0	0	0.0	5.6	1	4.3	9.1
12. INFANT DEATHS (UNDER 1 YEAR)	3	9.1	17.6	0	0.0	13.0	3	12.9	19.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	133	6.3	7.3	54	5.9	7.8	79	6.5	6.9
MALES	77	7.4	8.7	28	6.1	9.0	49	8.4	8.4
FEMALES	56	5.2	6.0	26	5.7	6.6	30	4.8	5.4
14. AGE									
00-04 YEARS	3	1.5	3.8	0	0.0	2.2	3	2.3	4.7
05-14 YEARS	5	1.2	0.6	1	0.7	0.3	4	1.5	0.8
15-24 YEARS	4	1.0	1.1	1	0.6	1.4	3	1.2	1.0
25-34 YEARS	7	2.0	1.8	3	2.0	1.7	4	2.0	1.9
35-44 YEARS	6	2.7	3.2	2	1.8	2.3	4	3.6	4.1
45-54 YEARS	18	9.5	10.1	8	7.9	7.2	10	11.2	13.8
55-64 YEARS	14	8.6	13.9	6	6.5	14.0	8	11.4	13.8
65 AND OVER	76	44.4	51.8	33	35.5	50.7	43	55.1	53.0
15. PLACE OF DEATH									
HOSPITAL	75	56.4	52.9	37	68.5	57.5	38	48.1	48.8
OTHER INSTITUTION	23	17.3	17.9	8	14.8	18.8	15	19.0	17.2
HOME OR NON-INSTITUTION	35	26.3	29.1	9	16.7	23.8	26	32.9	34.0
16. OCCURRENCE									
TOTAL	100	0.2	0.3	39	0.1	0.2	61	0.5	0.6
TO RESIDENTS	44	44.0	41.2	13	33.3	36.0	31	50.8	45.9
OTHER EVENTS									
17. MARRIAGES	71	3.3	3.8						
18. DIVORCES AND ANNULMENTS	61	2.9	2.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HYDE COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	6000	0.1	0.1	3909	0.1	0.1	2091	0.1	0.1
MALES	2924	48.7	48.0	1944	49.7	48.6	980	46.9	47.0
FEMALES	3076	51.3	52.0	1965	50.3	51.4	1111	53.1	53.0
2. NATURAL INCREASE	14	2.3	2.6	0	0.0	1.2	14	6.7	5.5
LIVE BIRTHS									
3. TOTAL	94	15.7	14.7	54	13.8	13.5	40	19.1	17.0
MALES	54	9.0	7.7	31	7.9	7.2	23	11.0	8.8
FEMALES	40	6.7	6.9	23	5.9	6.3	17	8.1	8.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	92	97.9	97.4	52	96.3	96.5	40	100.0	98.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.2	0	0.0	1.2	0	0.0	1.2
#CERTIFIED NURSE MIDWIFE	2	2.1	0.7	2	3.7	1.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	7	7.4	8.7	3	5.6	7.5	4	10.0	10.7
6. OUT OF WEDLOCK	25	26.6	21.7	2	3.7	4.7	23	57.5	47.6
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0		100.0	0		100.0	0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	31.6	25.8	1	18.5	15.7	2	48.8	40.9
9. FETAL DEATHS	1	10.5	7.0	0	0.0	0.0	1	24.4	17.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	0			1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0			0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0			0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0			0	0.0	0.0
OUT OF WEDLOCK	0	0.0	33.3	0			0	0.0	33.3
10. NEONATAL (UNDER 28 DAYS)	2	21.3	18.9	1	18.5	15.7	1	25.0	23.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	21.7	9.6	1	18.9	4.0	1	25.6	18.3
12. INFANT DEATHS (UNDER 1 YEAR)	4	42.6	28.4	2	37.0	19.6	2	50.0	41.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	80	13.3	12.0	54	13.8	12.3	26	12.4	11.5
MALES	50	17.1	14.0	35	18.0	14.3	15	15.3	13.6
FEMALES	30	9.8	10.2	19	9.7	10.5	11	9.9	9.7
14. AGE									
00-04 YEARS	4	8.7	6.8	2	6.5	4.8	2	13.2	9.9
05-14 YEARS	2	2.1	0.4	2	3.7	0.7	0	0.0	0.0
15-24 YEARS	1	1.0	2.3	1	1.7	1.4	0	0.0	3.9
25-34 YEARS	2	2.2	2.4	1	1.6	1.1	1	3.7	5.4
35-44 YEARS	4	6.8	2.8	1	2.4	1.5	3	17.1	5.9
45-54 YEARS	8	14.7	9.1	4	10.9	7.3	4	22.5	13.1
55-64 YEARS	5	8.2	12.8	3	6.9	11.7	2	11.6	15.6
65 AND OVER	54	59.5	52.9	40	64.2	56.9	14	49.3	44.4
15. PLACE OF DEATH									
HOSPITAL	51	63.7	60.2	32	59.3	60.5	19	73.1	59.6
OTHER INSTITUTION	10	12.5	15.9	8	14.8	15.5	2	7.7	16.7
HOME OR NON-INSTITUTION	19	23.7	23.9	14	25.9	24.0	5	19.2	23.7
16. OCCURRENCE									
TOTAL	27	0.1	0.1	19	0.1	0.1	8	0.1	0.1
TO RESIDENTS	24	88.9	76.1	17	89.5	71.9	7	87.5	85.7
OTHER EVENTS									
17. MARRIAGES	46	7.7	8.6						
18. DIVORCES AND ANNULMENTS	11	1.8	2.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

IREDELL COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	84157	1.4	1.4	69235	1.5	1.5	14922	1.0	1.1
MALES	40662	48.3	47.8	33555	48.5	48.0	7107	47.6	46.9
FEMALES	43495	51.7	52.2	35680	51.5	52.0	7815	52.4	53.1
2. NATURAL INCREASE	347	4.1	4.7	169	2.4	3.5	178	11.9	10.0
LIVE BIRTHS									
3. TOTAL	1080	12.8	13.3	797	11.5	12.1	283	19.0	18.8
MALES	544	6.5	6.7	407	5.9	6.1	137	9.2	9.4
FEMALES	536	6.4	6.6	390	5.6	5.9	146	9.8	9.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1074	99.4	99.5	792	99.4	99.4	282	99.6	99.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	3	0.3	0.1	3	0.4	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	84	7.8	7.5	47	5.9	5.5	37	13.1	13.5
6. OUT OF WEDLOCK	219	20.3	18.6	48	6.0	5.4	171	60.4	57.7
7. OCCURRENCE									
TOTAL	1209	1.4	1.5	926	1.6	1.7	283	1.0	1.0
TO RESIDENTS	950	78.6	78.0	695	75.1	74.4	255	90.1	90.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	17	15.6	24.6	10	12.5	19.0	7	24.3	41.1
9. FETAL DEATHS	10	9.2	13.0	5	6.2	10.1	5	17.4	21.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	9	90.0	94.4	5	100.0	97.6	4	80.0	90.0
PHYSICIAN NOT IN HOSPITAL	1	10.0	4.2	0	0.0	2.4	1	20.0	6.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	30.0	31.0	0	0.0	7.3	3	60.0	63.3
10. NEONATAL (UNDER 28 DAYS)	7	6.5	11.7	5	6.3	9.0	2	7.1	19.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	0.9	4.3	0	0.0	2.5	1	3.6	9.8
12. INFANT DEATHS (UNDER 1 YEAR)	8	7.4	16.0	5	6.3	11.4	3	10.6	29.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	733	8.7	8.6	628	9.1	8.6	105	7.0	8.8
MALES	423	10.4	10.3	363	10.8	10.3	60	8.4	10.3
FEMALES	310	7.1	7.1	265	7.4	7.0	45	5.8	7.4
14. AGE									
00-04 YEARS	10	1.8	3.5	7	1.7	2.5	3	2.2	6.3
05-14 YEARS	3	0.2	0.3	3	0.3	0.4	0	0.0	0.3
15-24 YEARS	18	1.3	1.2	16	1.5	1.1	2	0.7	1.5
25-34 YEARS	20	1.5	1.4	15	1.4	1.3	5	2.2	2.2
35-44 YEARS	29	2.8	2.6	21	2.3	2.2	8	5.3	5.1
45-54 YEARS	53	5.8	6.5	41	5.1	5.6	12	10.4	12.7
55-64 YEARS	118	13.8	13.1	99	13.2	11.7	19	17.7	21.6
65 AND OVER	482	48.7	48.6	426	49.2	48.2	56	44.8	51.3
15. PLACE OF DEATH									
HOSPITAL	556	75.9	72.9	472	75.2	73.6	84	80.0	69.7
OTHER INSTITUTION	82	11.2	13.4	74	11.8	13.8	8	7.6	11.8
HOME OR NON-INSTITUTION	95	13.0	13.7	82	13.1	12.6	13	12.4	18.5
16. OCCURRENCE									
TOTAL	712	1.4	1.4	610	1.6	1.6	102	0.8	0.9
TO RESIDENTS	581	81.6	80.3	491	80.5	78.5	90	88.2	89.2
OTHER EVENTS									
17. MARRIAGES	656	7.8	7.4						
18. DIVORCES AND ANNULMENTS	351	4.2	4.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

JACKSON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	26460	0.4	0.4	23353	0.5	0.5	3107	0.2	0.2
MALES	12957	49.0	49.2	11420	48.9	49.2	1537	49.5	49.1
FEMALES	13503	51.0	50.8	11933	51.1	50.8	1570	50.5	50.9
2. NATURAL INCREASE	128	4.8	4.1	82	3.5	2.8	46	14.8	14.7
LIVE BIRTHS									
3. TOTAL	322	12.2	11.6	259	11.1	10.3	63	20.3	21.7
MALES	152	5.7	5.7	120	5.1	5.0	32	10.3	11.4
FEMALES	170	6.4	5.8	139	6.0	5.3	31	10.0	10.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	314	97.5	98.6	252	97.3	98.4	62	98.4	99.7
PHYSICIAN NOT IN HOSPITAL	4	1.2	0.8	3	1.2	0.9	1	1.6	0.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	20	6.2	6.6	15	5.8	6.3	5	7.9	7.9
6. OUT OF WEDLOCK	43	13.4	10.3	21	8.1	5.9	22	34.9	27.5
7. OCCURRENCE									
TOTAL	430	0.5	0.5	364	0.6	0.6	66	0.2	0.2
TO RESIDENTS	240	55.8	55.1	212	58.2	57.4	28	42.4	41.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	15.3	22.1	2	7.7	16.9	3	45.5	42.1
9. FETAL DEATHS	4	12.3	12.7	1	3.8	10.1	3	45.5	22.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	75.0	94.7	1	100.0	100.0	2	66.7	85.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	75.0	26.3	0	0.0	8.3	3	100.0	57.1
10. NEONATAL (UNDER 28 DAYS)	1	3.1	9.5	1	3.9	6.8	0	0.0	19.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.1	4.8	0	0.0	3.4	1	15.9	10.1
12. INFANT DEATHS (UNDER 1 YEAR)	2	6.2	14.2	1	3.9	10.2	1	15.9	29.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	194	7.3	7.5	177	7.6	7.6	17	5.5	7.0
MALES	107	8.3	8.9	96	8.4	8.8	11	7.2	9.7
FEMALES	87	6.4	6.2	81	6.8	6.4	6	3.8	4.4
14. AGE									
00-04 YEARS	2	1.4	3.2	1	0.8	2.4	1	3.7	6.9
05-14 YEARS	2	0.6	0.4	2	0.7	0.4	0	0.0	0.3
15-24 YEARS	1	0.1	0.9	0	0.0	0.7	1	1.2	2.6
25-34 YEARS	6	1.6	1.6	4	1.2	1.3	2	4.4	3.7
35-44 YEARS	9	3.0	2.6	8	3.0	2.7	1	3.0	2.1
45-54 YEARS	13	5.6	6.8	12	5.7	6.1	1	4.3	13.4
55-64 YEARS	28	12.4	11.8	25	12.1	12.0	3	15.8	9.5
65 AND OVER	133	45.2	47.0	125	45.9	47.2	8	37.4	43.8
15. PLACE OF DEATH									
HOSPITAL	137	70.6	67.4	123	69.5	67.4	14	82.4	67.0
OTHER INSTITUTION	23	11.9	14.4	22	12.4	14.7	1	5.9	12.4
HOME OR NON-INSTITUTION	34	17.5	18.2	32	18.1	17.9	2	11.8	20.6
16. OCCURRENCE									
TOTAL	174	0.4	0.4	171	0.5	0.4	3	0.0	0.1
TO RESIDENTS	128	73.6	73.9	125	73.1	73.8	3	100.0	76.2
OTHER EVENTS									
17. MARRIAGES	195	7.4	6.9						
18. DIVORCES AND ANNULMENTS	118	4.5	3.3						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

JOHNSTON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	71841	1.2	1.2	57507	1.3	1.3	14334	1.0	1.0
MALES	34586	48.1	47.5	27895	48.5	48.0	6691	46.7	45.8
FEMALES	37255	51.9	52.5	29612	51.5	52.0	7643	53.3	54.2
2. NATURAL INCREASE	235	3.3	3.5	124	2.2	2.0	111	7.7	9.3
LIVE BIRTHS									
3. TOTAL	929	12.9	14.0	672	11.7	12.5	257	17.9	20.0
MALES	470	6.5	7.2	341	5.9	6.5	129	9.0	9.9
FEMALES	459	6.4	6.8	331	5.8	6.0	128	8.9	10.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	911	98.1	98.9	659	98.1	98.9	252	98.1	98.7
PHYSICIAN NOT IN HOSPITAL	10	1.1	0.6	7	1.0	0.7	3	1.2	0.4
#CERTIFIED NURSE MIDWIFE	5	0.5	0.2	4	0.6	0.2	1	0.4	0.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	72	7.8	8.2	37	5.5	6.0	35	13.6	13.7
6. OUT OF WEDLOCK	183	19.7	17.3	44	6.5	4.8	139	54.1	48.0
7. OCCURRENCE									
TOTAL	560	0.7	0.8	351	0.6	0.7	209	0.8	0.9
TO RESIDENTS	465	83.0	86.4	281	80.1	82.7	184	88.0	93.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	17	18.1	22.7	8	11.8	17.4	9	34.2	35.6
9. FETAL DEATHS	12	12.8	14.4	6	8.8	12.5	6	22.8	19.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	11	91.7	97.1	6	100.0	97.7	5	83.3	96.3
PHYSICIAN NOT IN HOSPITAL	1	8.3	1.4	0	0.0	0.0	1	16.7	3.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	16.7	17.1	0	0.0	9.3	2	33.3	29.6
10. NEONATAL (UNDER 28 DAYS)	5	5.4	8.4	2	3.0	5.0	3	11.7	16.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	6	6.5	7.0	3	4.5	5.6	3	11.8	10.3
12. INFANT DEATHS (UNDER 1 YEAR)	11	11.8	15.3	5	7.4	10.6	6	23.3	26.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	694	9.7	10.5	548	9.5	10.4	146	10.2	10.7
MALES	405	11.7	12.7	306	11.0	12.4	99	14.8	14.0
FEMALES	289	7.8	8.5	242	8.2	8.6	47	6.1	7.8
14. AGE									
00-04 YEARS	17	3.4	3.8	8	2.2	2.6	9	6.8	7.0
05-14 YEARS	5	0.4	0.5	3	0.4	0.5	2	0.7	0.6
15-24 YEARS	8	0.7	1.4	5	0.6	1.4	3	1.1	1.4
25-34 YEARS	21	1.8	1.9	14	1.5	1.5	7	3.2	3.9
35-44 YEARS	32	3.5	3.8	22	2.9	3.0	10	6.9	8.2
45-54 YEARS	64	8.4	9.1	42	6.5	8.0	22	18.5	14.8
55-64 YEARS	119	16.1	18.8	91	14.5	17.6	28	24.7	25.3
65 AND OVER	428	53.4	57.5	363	54.8	57.9	65	46.6	55.4
15. PLACE OF DEATH									
HOSPITAL	456	65.7	64.1	363	66.2	65.9	93	63.7	56.9
OTHER INSTITUTION	93	13.4	15.2	70	12.8	14.2	23	15.8	19.1
HOME OR NON-INSTITUTION	145	20.9	20.7	115	21.0	19.9	30	20.5	24.0
16. OCCURRENCE									
TOTAL	449	0.9	1.0	356	1.0	1.0	93	0.8	0.9
TO RESIDENTS	415	92.4	91.7	331	93.0	93.0	84	90.3	87.1
OTHER EVENTS									
17. MARRIAGES	564	7.9	7.7						
18. DIVORCES AND ANNULMENTS	350	4.9	4.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

JONES COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	9707	0.2	0.2	5466	0.1	0.1	4241	0.3	0.3
MALES	4563	47.0	47.8	2623	48.0	48.7	1940	45.7	46.4
FEMALES	5144	53.0	52.2	2843	52.0	51.3	2301	54.3	53.6
2. NATURAL INCREASE	71	7.3	4.9	33	6.0	2.4	38	9.0	8.3
LIVE BIRTHS									
3. TOTAL	136	14.0	13.9	71	13.0	11.7	65	15.3	17.0
MALES	74	7.6	6.7	40	7.3	5.8	34	8.0	7.9
FEMALES	62	6.4	7.2	31	5.7	5.9	31	7.3	9.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	135	99.3	99.6	71	100.0	100.0	64	98.5	99.1
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.3	0	0.0	0.0	0	0.0	0.6
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	14	10.3	10.3	4	5.6	6.4	10	15.4	14.0
6. OUT OF WEDLOCK	33	24.3	26.3	2	2.8	4.0	31	47.7	47.8
7. OCCURRENCE									
TOTAL	1	0.0	0.0	0	0.0	0.0	1	0.0	0.0
TO RESIDENTS	1	100.0	100.0	0			1	100.0	100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	36.2	26.4	2	28.2	21.1	3	44.8	31.5
9. FETAL DEATHS	2	14.5	13.2	0	0.0	9.0	2	29.9	17.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	0		100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	2	100.0	55.6	0		0.0	2	100.0	83.3
10. NEONATAL (UNDER 28 DAYS)	3	22.1	13.4	2	28.2	12.2	1	15.4	14.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	3.0	0	0.0	3.1	0	0.0	3.0
12. INFANT DEATHS (UNDER 1 YEAR)	3	22.1	16.4	2	28.2	15.2	1	15.4	17.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	65	6.7	9.1	38	7.0	9.4	27	6.4	8.7
MALES	40	8.8	11.0	24	9.1	11.6	16	8.2	10.2
FEMALES	25	4.9	7.3	14	4.9	7.2	11	4.8	7.4
14. AGE									
00-04 YEARS	4	5.3	4.1	2	5.4	3.5	2	5.3	4.7
05-14 YEARS	0	0.0	0.2	0	0.0	0.5	0	0.0	0.0
15-24 YEARS	2	1.1	1.8	2	2.3	2.4	0	0.0	1.2
25-34 YEARS	1	0.7	1.6	1	1.2	1.1	0	0.0	2.6
35-44 YEARS	3	2.9	3.9	1	1.5	2.8	2	5.3	5.9
45-54 YEARS	5	5.3	8.7	4	7.3	8.4	1	2.5	9.2
55-64 YEARS	15	14.5	13.7	7	11.0	12.4	8	20.2	15.9
65 AND OVER	35	29.8	45.3	21	28.6	44.3	14	31.7	47.1
15. PLACE OF DEATH									
HOSPITAL	46	70.8	71.5	28	73.7	73.0	18	66.7	69.1
OTHER INSTITUTION	6	9.2	14.6	4	10.5	16.0	2	7.4	12.6
HOME OR NON-INSTITUTION	13	20.0	13.9	6	15.8	11.0	7	25.9	18.3
16. OCCURRENCE									
TOTAL	18	0.0	0.0	8	0.0	0.0	10	0.1	0.1
TO RESIDENTS	13	72.2	85.2	7	87.5	88.1	6	60.0	82.1
OTHER EVENTS									
17. MARRIAGES	91	9.4	8.2						
18. DIVORCES AND ANNULMENTS	33	3.4	4.0						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

LEE COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	37090	0.6	0.6	28774	0.6	0.6	8316	0.6	0.6
MALES	17738	47.8	47.4	13845	48.1	47.7	3893	46.8	46.4
FEMALES	19352	52.2	52.6	14929	51.9	52.3	4423	53.2	53.6
2. NATURAL INCREASE	261	7.0	7.5	162	5.6	5.7	99	11.9	13.6
LIVE BIRTHS									
3. TOTAL	593	16.0	16.8	407	14.1	14.6	186	22.4	24.6
MALES	295	8.0	8.4	200	7.0	7.3	95	11.4	12.3
FEMALES	298	8.0	8.5	207	7.2	7.3	91	10.9	12.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	583	98.3	99.5	397	97.5	99.4	186	100.0	99.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.1
#CERTIFIED NURSE MIDWIFE	10	1.7	0.4	10	2.5	0.6	0	0.0	0.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	57	9.6	9.6	26	6.4	7.7	31	16.7	13.3
6. OUT OF WEDLOCK	134	22.6	21.4	29	7.1	6.8	105	56.5	51.3
7. OCCURRENCE									
TOTAL	558	0.7	0.8	403	0.7	0.9	155	0.6	0.7
TO RESIDENTS	393	70.4	67.4	280	69.5	65.4	113	72.9	72.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	13	21.8	24.0	8	19.5	19.2	5	26.7	33.7
9. FETAL DEATHS	4	6.7	10.5	3	7.3	7.4	1	5.3	16.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	3	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	50.0	31.3	1	33.3	13.3	1	100.0	47.1
10. NEONATAL (UNDER 28 DAYS)	9	15.2	13.6	5	12.3	11.9	4	21.5	17.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	1.7	5.1	0	0.0	2.5	1	5.5	10.3
12. INFANT DEATHS (UNDER 1 YEAR)	10	16.9	18.6	5	12.3	14.4	5	26.9	27.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	332	9.0	9.3	245	8.5	8.8	87	10.5	11.0
MALES	187	10.5	11.6	130	9.4	11.0	57	14.6	13.8
FEMALES	145	7.5	7.3	115	7.7	6.9	30	6.8	8.6
14. AGE									
00-04 YEARS	12	4.3	5.1	5	2.6	3.5	7	8.6	9.4
05-14 YEARS	1	0.2	0.3	0	0.0	0.3	1	0.6	0.1
15-24 YEARS	15	2.3	1.4	7	1.4	1.1	8	5.0	2.3
25-34 YEARS	9	1.5	2.1	5	1.1	1.3	4	3.0	4.9
35-44 YEARS	12	2.6	3.2	8	2.1	2.6	4	4.7	5.6
45-54 YEARS	22	5.6	7.5	15	4.7	6.7	7	9.7	10.6
55-64 YEARS	52	14.5	18.3	36	12.4	16.5	16	23.3	25.9
65 AND OVER	209	55.1	53.1	169	55.0	51.0	40	55.9	61.6
15. PLACE OF DEATH									
HOSPITAL	226	68.1	68.9	169	69.0	69.1	57	65.5	68.4
OTHER INSTITUTION	55	16.6	18.1	41	16.7	19.3	14	16.1	14.9
HOME OR NON-INSTITUTION	51	15.4	12.9	35	14.3	11.5	16	18.4	16.7
16. OCCURRENCE									
TOTAL	316	0.6	0.7	240	0.6	0.7	76	0.6	0.7
TO RESIDENTS	236	74.7	73.3	178	74.2	72.9	58	76.3	74.6
OTHER EVENTS									
17. MARRIAGES	293	7.9	7.0						
18. DIVORCES AND ANNULMENTS	185	5.0	5.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

LENOIR COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	60004	1.0	1.0	36744	0.8	0.8	23260	1.6	1.7
MALES	28307	47.2	46.8	17704	48.2	47.7	10603	45.6	45.5
FEMALES	31697	52.8	53.2	19040	51.8	52.3	12657	54.4	54.5
2. NATURAL INCREASE	280	4.7	5.3	100	2.7	2.8	180	7.7	9.3
LIVE BIRTHS									
3. TOTAL	883	14.7	14.9	447	12.2	12.1	436	18.7	19.2
MALES	459	7.6	7.5	242	6.6	6.3	217	9.3	9.5
FEMALES	424	7.1	7.3	205	5.6	5.8	219	9.4	9.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	879	99.5	99.3	445	99.6	99.3	434	99.5	99.3
PHYSICIAN NOT IN HOSPITAL	2	0.2	0.4	0	0.0	0.5	2	0.5	0.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	1	0.1	0.2	1	0.2	0.0	0	0.0	0.3
5. PREMATURE BIRTHS	78	8.8	9.2	29	6.5	5.9	49	11.2	12.5
6. OUT OF WEDLOCK	249	28.2	26.4	32	7.2	4.6	217	49.8	47.7
7. OCCURRENCE									
TOTAL	990	1.2	1.2	543	0.9	1.0	447	1.6	1.8
TO RESIDENTS	782	79.0	76.7	383	70.5	70.0	399	89.3	84.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	17	19.1	22.3	8	17.8	19.5	9	20.4	25.1
9. FETAL DEATHS	8	9.0	13.4	3	6.7	11.8	5	11.3	15.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	100.0	98.3	3	100.0	96.2	5	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.7	0	0.0	3.8	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	37.5	30.0	0	0.0	3.8	3	60.0	50.0
10. NEONATAL (UNDER 28 DAYS)	9	10.2	9.0	5	11.2	7.8	4	9.2	10.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	1.1	5.7	0	0.0	2.3	1	2.3	9.0
12. INFANT DEATHS (UNDER 1 YEAR)	10	11.3	14.7	5	11.2	10.1	5	11.5	19.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	603	10.0	9.5	347	9.4	9.2	256	11.0	10.0
MALES	326	11.5	11.4	175	9.9	10.7	151	14.2	12.6
FEMALES	277	8.7	7.9	172	9.0	7.9	105	8.3	7.8
14. AGE									
00-04 YEARS	11	2.6	3.7	5	2.3	2.4	6	2.8	5.2
05-14 YEARS	5	0.5	0.4	1	0.2	0.3	4	0.9	0.4
15-24 YEARS	21	2.0	1.2	12	2.0	1.2	9	2.1	1.3
25-34 YEARS	14	1.5	1.9	7	1.2	1.4	7	1.9	2.8
35-44 YEARS	27	3.8	3.6	10	2.0	2.6	17	8.1	5.9
45-54 YEARS	51	8.0	9.0	29	6.7	7.3	22	10.7	12.8
55-64 YEARS	107	17.4	17.5	57	13.7	15.2	50	24.8	21.8
65 AND OVER	367	56.8	54.6	226	54.5	55.5	141	60.9	53.0
15. PLACE OF DEATH									
HOSPITAL	388	64.3	65.9	238	68.6	66.8	150	58.6	64.5
OTHER INSTITUTION	110	18.2	18.5	62	17.9	18.6	48	18.8	18.3
HOME OR NON-INSTITUTION	105	17.4	15.6	47	13.5	14.6	58	22.7	17.1
16. OCCURRENCE									
TOTAL	582	1.2	1.3	364	1.0	1.1	218	1.8	2.0
TO RESIDENTS	472	81.1	74.4	275	75.5	71.9	197	90.4	78.3
OTHER EVENTS									
17. MARRIAGES	468	7.8	8.2						
18. DIVORCES AND ANNULMENTS	336	5.6	4.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

LINCOLN COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	42909	0.7	0.7	38912	0.9	0.8	3997	0.3	0.3
MALES	21042	49.0	48.6	19119	49.1	48.7	1923	48.1	48.1
FEMALES	21867	51.0	51.4	19793	50.9	51.3	2074	51.9	51.9
2. NATURAL INCREASE	257	6.0	6.1	201	5.2	5.5	56	14.0	12.2
LIVE BIRTHS									
3. TOTAL	573	13.4	14.2	490	12.6	13.6	83	20.8	20.7
MALES	289	6.7	7.1	241	6.2	6.8	48	12.0	10.1
FEMALES	284	6.6	7.1	249	6.4	6.8	35	8.8	10.6
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	572	99.8	99.6	489	99.8	99.7	83	100.0	99.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	33	5.8	7.1	24	4.9	6.2	9	10.8	12.6
6. OUT OF WEDLOCK	85	14.8	12.5	36	7.3	6.4	49	59.0	51.3
7. OCCURRENCE									
TOTAL	449	0.5	0.5	363	0.6	0.6	86	0.3	0.3
TO RESIDENTS	342	76.2	79.0	269	74.1	77.4	73	84.9	86.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	10	17.3	19.4	9	18.1	19.6	1	12.0	17.9
9. FETAL DEATHS	6	10.4	9.0	6	12.1	9.6	0	0.0	5.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	83.3	96.2	5	83.3	95.8	0		100.0
PHYSICIAN NOT IN HOSPITAL	1	16.7	3.8	1	16.7	4.2	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	7.7	0	0.0	0.0	0		100.0
10. NEONATAL (UNDER 28 DAYS)	4	7.0	10.5	3	6.1	10.1	1	12.0	12.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	3.5	6.0	2	4.1	6.1	0	0.0	5.2
12. INFANT DEATHS (UNDER 1 YEAR)	6	10.5	16.4	5	10.2	16.2	1	12.0	18.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	316	7.4	8.1	289	7.4	8.0	27	6.8	8.4
MALES	191	9.1	9.6	172	9.0	9.4	19	9.9	11.6
FEMALES	125	5.7	6.6	117	5.9	6.7	8	3.9	5.4
14. AGE									
00-04 YEARS	7	2.4	4.0	5	1.9	3.8	2	5.1	5.4
05-14 YEARS	1	0.1	0.5	0	0.0	0.4	1	1.1	0.8
15-24 YEARS	4	0.6	1.2	4	0.6	1.3	0	0.0	0.3
25-34 YEARS	7	1.0	1.4	7	1.1	1.3	0	0.0	2.9
35-44 YEARS	12	2.1	2.8	10	1.9	2.1	2	5.0	11.8
45-54 YEARS	31	6.6	6.5	28	6.4	6.2	3	10.2	10.1
55-64 YEARS	57	14.1	13.6	50	13.3	13.1	7	24.1	20.3
65 AND OVER	197	46.8	50.4	185	47.2	50.4	12	41.4	49.8
15. PLACE OF DEATH									
HOSPITAL	265	83.9	84.8	242	83.7	84.5	23	85.2	87.3
OTHER INSTITUTION	36	11.4	10.8	35	12.1	11.2	1	3.7	6.3
HOME OR NON-INSTITUTION	15	4.7	4.4	12	4.2	4.2	3	11.1	6.3
16. OCCURRENCE									
TOTAL	264	0.5	0.6	237	0.6	0.7	27	0.2	0.2
TO RESIDENTS	225	85.2	82.1	201	84.8	81.7	24	88.9	85.1
OTHER EVENTS									
17. MARRIAGES	261	6.1	6.0						
18. DIVORCES AND ANNULMENTS	207	4.8	4.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MCDOWELL COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	35867	0.6	0.6	34128	0.8	0.8	1739	0.1	0.1
MALES	17415	48.6	48.0	16602	48.6	48.0	813	46.8	48.1
FEMALES	18452	51.4	52.0	17526	51.4	52.0	926	53.2	51.9
2. NATURAL INCREASE	158	4.4	5.7	138	4.0	5.5	20	11.5	8.6
LIVE BIRTHS									
3. TOTAL	468	13.0	13.4	436	12.8	13.3	32	18.4	17.0
MALES	280	7.8	7.0	258	7.6	6.9	22	12.7	8.9
FEMALES	188	5.2	6.4	178	5.2	6.3	10	5.8	8.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	467	99.8	99.8	435	99.8	99.9	32	100.0	99.3
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	29	6.2	7.9	26	6.0	7.7	3	9.4	10.6
6. OUT OF WEDLOCK	46	9.8	8.3	31	7.1	6.8	15	46.9	31.2
7. OCCURRENCE									
TOTAL	219	0.3	0.3	194	0.3	0.4	25	0.1	0.1
TO RESIDENTS	211	96.3	92.6	187	96.4	92.2	24	96.0	96.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	9	18.9	18.7	7	15.8	17.2	2	60.6	41.7
9. FETAL DEATHS	7	14.7	11.0	6	13.6	10.4	1	30.3	20.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	7	100.0	100.0	6	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	7.7	0	0.0	4.3	0	0.0	33.3
10. NEONATAL (UNDER 28 DAYS)	2	4.3	7.7	1	2.3	6.8	1	31.3	21.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.1	4.3	1	2.3	4.6	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	3	6.4	12.0	2	4.6	11.4	1	31.3	21.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	310	8.6	7.8	298	8.7	7.7	12	6.9	8.4
MALES	175	10.0	9.4	170	10.2	9.3	5	6.2	11.3
FEMALES	135	7.3	6.2	128	7.3	6.3	7	7.6	5.8
14. AGE									
00-04 YEARS	4	1.7	3.1	3	1.3	3.0	1	7.2	4.1
05-14 YEARS	1	0.2	0.3	1	0.2	0.3	0	0.0	0.6
15-24 YEARS	5	0.9	0.8	5	0.9	0.8	0	0.0	1.3
25-34 YEARS	6	1.1	0.9	6	1.1	0.9	0	0.0	1.6
35-44 YEARS	13	2.9	2.2	13	3.0	2.1	0	0.0	4.8
45-54 YEARS	21	5.3	5.2	19	5.0	5.1	2	12.6	6.2
55-64 YEARS	49	13.7	13.2	49	14.3	13.2	0	0.0	14.0
65 AND OVER	211	49.6	42.7	202	49.6	42.3	9	46.2	52.0
15. PLACE OF DEATH									
HOSPITAL	182	58.7	57.2	174	58.4	57.1	8	66.7	58.6
OTHER INSTITUTION	67	21.6	23.6	64	21.5	23.5	3	25.0	24.3
HOME OR NON-INSTITUTION	61	19.7	19.3	60	20.1	19.4	1	8.3	17.1
16. OCCURRENCE									
TOTAL	235	0.5	0.4	227	0.6	0.5	8	0.1	0.1
TO RESIDENTS	205	87.2	84.8	198	87.2	85.1	7	87.5	81.1
OTHER EVENTS									
17. MARRIAGES	275	7.7	7.4						
18. DIVORCES AND ANNULMENTS	144	4.0	3.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MACON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	21204	0.4	0.3	20746	0.5	0.4	458	0.0	0.0
MALES	10298	48.6	48.0	9990	48.2	47.7	308	67.2	63.1
FEMALES	10906	51.4	52.0	10756	51.8	52.3	150	32.8	36.9
2. NATURAL INCREASE	32	1.5	1.3	32	1.5	1.4	0	0.0	-4.3
LIVE BIRTHS									
3. TOTAL	254	12.0	11.5	247	11.9	11.5	7	15.3	7.6
MALES	127	6.0	6.0	126	6.1	6.0	1	2.2	2.7
FEMALES	127	6.0	5.5	121	5.8	5.5	6	13.1	4.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	248	97.6	97.9	241	97.6	97.9	7	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	4	1.6	1.7	4	1.6	1.7	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	21	8.3	5.9	20	8.1	5.8	1	14.3	14.3
6. OUT OF WEDLOCK	19	7.5	5.4	17	6.9	5.2	2	28.6	21.4
7. OCCURRENCE									
TOTAL	214	0.3	0.2	209	0.4	0.3	5	0.0	0.0
TO RESIDENTS	194	90.7	89.3	190	90.9	89.3	4	80.0	90.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	11.7	20.0	2	8.0	18.5	1	125.0	125.0
9. FETAL DEATHS	3	11.7	11.3	2	8.0	9.7	1	125.0	125.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	100.0	2	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	33.3	30.8	0	0.0	18.2	1	100.0	100.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	8.8	0	0.0	8.9	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.9	4.4	1	4.0	4.5	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	1	3.9	13.2	1	4.0	13.3	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	222	10.5	10.2	215	10.4	10.2	7	15.3	11.9
MALES	118	11.5	12.2	114	11.4	12.3	4	13.0	9.5
FEMALES	104	9.5	8.3	101	9.4	8.2	3	20.0	16.2
14. AGE									
00-04 YEARS	2	1.8	3.1	2	1.8	3.2	0	0.0	0.0
05-14 YEARS	0	0.0	0.2	0	0.0	0.2	0	0.0	0.0
15-24 YEARS	5	1.6	1.1	5	1.6	1.2	0	0.0	0.0
25-34 YEARS	4	1.4	1.1	4	1.4	1.0	0	0.0	4.5
35-44 YEARS	2	0.8	1.7	2	0.8	1.6	0	0.0	8.8
45-54 YEARS	6	2.7	5.0	6	2.7	5.0	0	0.0	0.0
55-64 YEARS	34	13.0	13.1	33	12.8	13.2	1	35.7	12.1
65 AND OVER	169	42.8	41.8	163	41.8	41.4	6	117.6	67.7
15. PLACE OF DEATH									
HOSPITAL	165	74.3	76.6	161	74.9	76.7	4	57.1	72.7
OTHER INSTITUTION	29	13.1	10.7	29	13.5	10.8	0	0.0	4.5
HOME OR NON-INSTITUTION	28	12.6	12.7	25	11.6	12.5	3	42.9	22.7
16. OCCURRENCE									
TOTAL	192	0.4	0.4	184	0.5	0.5	8	0.1	0.0
TO RESIDENTS	150	78.1	79.1	143	77.7	78.8	7	87.5	95.0
OTHER EVENTS									
17. MARRIAGES	205	9.7	9.9						
18. DIVORCES AND ANNULMENTS	78	3.7	3.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MADISON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	17522	0.3	0.3	17316	0.4	0.4	206	0.0	0.0
MALES	8589	49.0	48.0	8479	49.0	48.0	110	53.4	53.4
FEMALES	8933	51.0	52.0	8837	51.0	52.0	96	46.6	46.6
2. NATURAL INCREASE	-12	-0.7	1.1	-10	-0.6	1.1	-2	-9.7	-2.8
LIVE BIRTHS									
3. TOTAL	175	10.0	11.1	175	10.1	11.1	0	0.0	7.1
MALES	103	5.9	6.0	103	5.9	6.0	0	0.0	2.8
FEMALES	72	4.1	5.1	72	4.2	5.1	0	0.0	4.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	165	94.3	97.0	165	94.3	96.9	0		100.0
PHYSICIAN NOT IN HOSPITAL	2	1.1	0.7	2	1.1	0.7	0		0.0
#CERTIFIED NURSE MIDWIFE	1	0.6	0.1	1	0.6	0.1	0		0.0
PERMITTED MIDWIFE	1	0.6	0.2	1	0.6	0.2	0		0.0
5. PREMATURE BIRTHS	13	7.4	7.8	13	7.4	7.8	0		0.0
6. OUT OF WEDLOCK	19	10.9	7.2	19	10.9	7.3	0		0.0
7. OCCURRENCE									
TOTAL	6	0.0	0.0	6	0.0	0.0	0	0.0	0.0
TO RESIDENTS	6	100.0	100.0	6	100.0	100.0	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	28.6	23.9	5	28.6	24.0	0		0.0
9. FETAL DEATHS	0	0.0	10.4	0	0.0	10.4	0		0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		100.0	0		100.0	0		
PHYSICIAN NOT IN HOSPITAL	0		0.0	0		0.0	0		
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		
PERMITTED MIDWIFE	0		0.0	0		0.0	0		
OUT OF WEDLOCK	0		10.0	0		10.0	0		
10. NEONATAL (UNDER 28 DAYS)	5	28.6	13.6	5	28.6	13.7	0		0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	2.1	0	0.0	2.1	0		0.0
12. INFANT DEATHS (UNDER 1 YEAR)	5	28.6	15.7	5	28.6	15.8	0		0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	187	10.7	10.0	185	10.7	10.0	2	9.7	9.9
MALES	118	13.7	12.5	117	13.8	12.5	1	9.1	13.2
FEMALES	69	7.7	7.7	68	7.7	7.7	1	10.4	6.1
14. AGE									
00-04 YEARS	6	5.6	4.2	6	5.6	4.2	0	0.0	0.0
05-14 YEARS	2	0.8	0.5	2	0.8	0.5	0	0.0	0.0
15-24 YEARS	5	1.5	1.8	5	1.6	1.8	0	0.0	0.0
25-34 YEARS	2	0.8	1.1	2	0.8	1.0	0	0.0	13.5
35-44 YEARS	5	2.4	2.2	5	2.4	2.2	0	0.0	0.0
45-54 YEARS	13	7.6	6.2	13	7.6	6.2	0	0.0	0.0
55-64 YEARS	19	10.8	10.2	18	10.3	10.2	1	66.7	9.3
65 AND OVER	135	52.9	45.6	134	53.0	45.7	1	40.0	34.5
15. PLACE OF DEATH									
HOSPITAL	96	51.3	48.6	95	51.4	48.5	1	50.0	57.1
OTHER INSTITUTION	41	21.9	22.1	41	22.2	22.2	0	0.0	14.3
HOME OR NON-INSTITUTION	50	26.7	29.3	49	26.5	29.3	1	50.0	28.6
16. OCCURRENCE									
TOTAL	66	0.1	0.1	65	0.2	0.2	1	0.0	0.0
TO RESIDENTS	58	87.9	89.8	57	87.7	90.1	1	100.0	66.7
OTHER EVENTS									
17. MARRIAGES	125	7.1	6.6						
18. DIVORCES AND ANNULMENTS	59	3.4	2.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MARTIN COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	26356	0.4	0.5	14548	0.3	0.3	11808	0.8	0.8
MALES	12488	47.4	47.1	6937	47.7	47.0	5551	47.0	47.2
FEMALES	13868	52.6	52.9	7611	52.3	53.0	6257	53.0	52.8
2. NATURAL INCREASE	126	4.8	4.9	15	1.0	1.7	111	9.4	9.0
LIVE BIRTHS									
3. TOTAL	385	14.6	15.1	165	11.3	12.0	220	18.6	19.0
MALES	180	6.8	7.7	74	5.1	6.0	106	9.0	9.8
FEMALES	205	7.8	7.4	91	6.3	6.0	114	9.7	9.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	385	100.0	97.6	165	100.0	98.4	220	100.0	97.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	1.8	0	0.0	1.3	0	0.0	2.3
PERMITTED MIDWIFE	0	0.0	0.5	0	0.0	0.2	0	0.0	0.7
5. PREMATURE BIRTHS	29	7.5	8.0	14	8.5	6.0	15	6.8	9.6
6. OUT OF WEDLOCK	111	28.8	26.5	11	6.7	4.0	100	45.5	44.8
7. OCCURRENCE									
TOTAL	231	0.3	0.3	89	0.2	0.2	142	0.5	0.6
TO RESIDENTS	162	70.1	76.3	69	77.5	81.8	93	65.5	72.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	12	30.8	32.7	4	24.1	20.5	8	35.7	42.5
9. FETAL DEATHS	5	12.8	11.7	1	6.0	8.0	4	17.9	14.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	100.0	91.3	1	100.0	100.0	4	100.0	87.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	4.3	0	0.0	0.0	0	0.0	6.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	17.4	0	0.0	0.0	0	0.0	25.0
10. NEONATAL (UNDER 28 DAYS)	7	18.2	21.2	3	18.2	12.6	4	18.2	28.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.6	3.2	1	6.2	1.2	0	0.0	4.8
12. INFANT DEATHS (UNDER 1 YEAR)	8	20.8	24.3	4	24.2	13.8	4	18.2	32.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	259	9.8	10.2	150	10.3	10.3	109	9.2	10.0
MALES	150	12.0	12.2	84	12.1	12.3	66	11.9	12.2
FEMALES	109	7.9	8.4	66	8.7	8.6	43	6.9	8.0
14. AGE									
00-04 YEARS	8	4.2	5.3	4	4.4	3.1	4	4.0	7.4
05-14 YEARS	2	0.5	0.3	1	0.5	0.1	1	0.4	0.4
15-24 YEARS	3	0.7	0.9	2	0.9	0.8	1	0.4	1.0
25-34 YEARS	5	1.2	1.7	2	0.9	1.1	3	1.6	2.6
35-44 YEARS	10	3.4	3.6	5	2.7	2.7	5	4.5	5.4
45-54 YEARS	20	7.6	8.5	10	6.1	6.8	10	10.0	11.3
55-64 YEARS	54	19.7	18.6	31	18.1	17.6	23	22.2	20.2
65 AND OVER	157	50.1	54.5	95	48.2	55.1	62	53.5	53.5
15. PLACE OF DEATH									
HOSPITAL	182	70.3	73.1	106	70.7	76.0	76	69.7	69.1
OTHER INSTITUTION	45	17.4	13.8	25	16.7	12.9	20	18.3	15.0
HOME OR NON-INSTITUTION	32	12.4	13.1	19	12.7	11.1	13	11.9	15.9
16. OCCURRENCE									
TOTAL	201	0.4	0.4	110	0.3	0.3	91	0.7	0.8
TO RESIDENTS	161	80.1	79.0	95	86.4	83.0	66	72.5	74.5
OTHER EVENTS									
17. MARRIAGES	250	9.5	8.6						
18. DIVORCES AND ANNULMENTS	84	3.2	2.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MECKLENBURG COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	411641	6.9	6.9	294556	6.5	6.6	117085	8.1	7.8
MALES	197142	47.9	47.6	142456	48.4	48.0	54686	46.7	46.4
FEMALES	214499	52.1	52.4	152100	51.6	52.0	62399	53.3	53.6
2. NATURAL INCREASE	3083	7.5	7.5	1654	5.6	5.6	1429	12.2	12.6
LIVE BIRTHS									
3. TOTAL	6086	14.8	14.8	3743	12.7	12.5	2343	20.0	20.9
MALES	3075	7.5	7.5	1893	6.4	6.4	1182	10.1	10.5
FEMALES	3011	7.3	7.2	1850	6.3	6.1	1161	9.9	10.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	6059	99.6	99.6	3724	99.5	99.6	2335	99.7	99.7
PHYSICIAN NOT IN HOSPITAL	7	0.1	0.2	2	0.1	0.1	5	0.2	0.3
#CERTIFIED NURSE MIDWIFE	2	0.0	0.0	2	0.1	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	520	8.5	8.5	217	5.8	5.8	303	12.9	13.0
6. OUT OF WEDLOCK	1434	23.6	23.5	217	5.8	5.6	1217	51.9	52.4
7. OCCURRENCE									
TOTAL	7877	9.3	8.7	5293	9.2	8.6	2584	9.5	8.8
TO RESIDENTS	5974	75.8	77.6	3658	69.1	70.9	2316	89.6	91.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	125	20.3	22.8	52	13.8	16.1	73	30.6	33.6
9. FETAL DEATHS	72	11.7	10.7	29	7.7	7.8	43	18.0	15.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	72	100.0	98.7	29	100.0	99.3	43	100.0	98.3
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.3	0	0.0	0.7	0	0.0	1.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	25	34.7	38.3	1	3.4	8.6	24	55.8	62.4
10. NEONATAL (UNDER 28 DAYS)	53	8.7	12.3	23	6.1	8.4	30	12.8	18.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	27	4.5	3.7	16	4.3	2.8	11	4.8	5.3
12. INFANT DEATHS (UNDER 1 YEAR)	80	13.1	16.0	39	10.4	11.2	41	17.5	23.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	3003	7.3	7.3	2089	7.1	6.9	914	7.8	8.3
MALES	1597	8.1	8.4	1078	7.6	7.7	519	9.5	10.2
FEMALES	1406	6.6	6.3	1011	6.6	6.2	395	6.3	6.6
14. AGE									
00-04 YEARS	91	3.3	3.6	44	2.6	2.4	47	4.6	5.9
05-14 YEARS	18	0.3	0.3	13	0.3	0.3	5	0.2	0.2
15-24 YEARS	80	1.0	1.2	58	1.1	1.2	22	0.9	1.2
25-34 YEARS	93	1.2	1.4	40	0.7	0.9	53	2.4	2.9
35-44 YEARS	129	2.4	2.6	62	1.5	1.6	67	5.1	5.8
45-54 YEARS	278	6.5	6.8	156	4.6	5.1	122	13.7	13.5
55-64 YEARS	559	15.6	16.2	368	12.8	13.6	191	27.0	26.2
65 AND OVER	1755	49.4	50.9	1348	48.0	49.6	407	54.9	55.9
15. PLACE OF DEATH									
HOSPITAL	2014	67.1	70.0	1369	65.5	67.8	645	70.6	74.8
OTHER INSTITUTION	478	15.9	14.8	366	17.5	16.9	112	12.3	10.2
HOME OR NON-INSTITUTION	511	17.0	15.2	354	16.9	15.3	157	17.2	15.0
16. OCCURRENCE									
TOTAL	3637	7.3	7.2	2663	7.1	7.0	974	7.9	7.8
TO RESIDENTS	2733	75.1	74.4	1898	71.3	70.5	835	85.7	84.9
OTHER EVENTS									
17. MARRIAGES	2806	6.8	6.3						
18. DIVORCES AND ANNULMENTS	2879	7.0	6.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MITCHELL COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	14515	0.2	0.2	14435	0.3	0.3	80	0.0	0.0
MALES	7077	48.8	48.2	7040	48.8	48.1	37	46.2	53.2
FEMALES	7438	51.2	51.8	7395	51.2	51.9	43	53.7	46.8
2. NATURAL INCREASE	29	2.0	2.1	30	2.1	2.1	-1	-12.5	0.0
LIVE BIRTHS									
3. TOTAL	189	13.0	12.4	189	13.1	12.5	0	0.0	10.6
MALES	92	6.3	6.4	92	6.4	6.4	0	0.0	3.5
FEMALES	97	6.7	6.1	97	6.7	6.1	0	0.0	7.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	186	98.4	99.4	186	98.4	99.4	0		100.0
PHYSICIAN NOT IN HOSPITAL	2	1.1	0.5	2	1.1	0.5	0		0.0
#CERTIFIED NURSE MIDWIFE	1	0.5	0.1	1	0.5	0.1	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
5. PREMATURE BIRTHS	12	6.3	7.0	12	6.3	7.1	0		0.0
6. OUT OF WEDLOCK	9	4.8	7.3	9	4.8	7.3	0		0.0
7. OCCURRENCE									
TOTAL	177	0.2	0.2	177	0.3	0.3	0	0.0	0.0
TO RESIDENTS	102	57.6	51.0	102	57.6	51.2	0		33.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	15.7	21.2	3	15.7	21.3	0		0.0
9. FETAL DEATHS	2	10.5	16.7	2	10.5	16.8	0		0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	2	100.0	100.0	0		
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
OUT OF WEDLOCK	1	50.0	13.3	1	50.0	13.3	0		
10. NEONATAL (UNDER 28 DAYS)	1	5.3	4.5	1	5.3	4.6	0		0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	5.3	6.8	1	5.3	6.9	0		0.0
12. INFANT DEATHS (UNDER 1 YEAR)	2	10.6	11.3	2	10.6	11.4	0		0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	160	11.0	10.4	159	11.0	10.4	1	12.5	10.6
MALES	81	11.4	12.2	80	11.4	12.2	1	27.0	19.9
FEMALES	79	10.6	8.7	79	10.7	8.7	0	0.0	0.0
14. AGE									
00-04 YEARS	2	2.4	2.7	2	2.4	2.7	0	0.0	0.0
05-14 YEARS	2	1.0	0.4	2	1.0	0.4	0	0.0	0.0
15-24 YEARS	3	1.3	1.2	3	1.3	1.2	0	0.0	0.0
25-34 YEARS	0	0.0	0.8	0	0.0	0.8	0	0.0	0.0
35-44 YEARS	6	3.3	3.5	6	3.3	3.4	0	0.0	58.8
45-54 YEARS	10	6.0	5.6	10	6.0	5.6	0	0.0	0.0
55-64 YEARS	20	12.6	11.7	20	12.6	11.7	0	0.0	0.0
65 AND OVER	117	53.2	45.6	116	53.2	45.7	1	58.8	36.4
15. PLACE OF DEATH									
HOSPITAL	105	65.6	69.4	104	65.4	69.3	1	100.0	100.0
OTHER INSTITUTION	23	14.4	13.9	23	14.5	13.9	0	0.0	0.0
HOME OR NON-INSTITUTION	32	20.0	16.7	32	20.1	16.8	0	0.0	0.0
16. OCCURRENCE									
TOTAL	142	0.3	0.3	141	0.4	0.3	1	0.0	0.0
TO RESIDENTS	110	77.5	75.2	109	77.3	75.2	1	100.0	100.0
OTHER EVENTS									
17. MARRIAGES	115	7.9	8.5						
18. DIVORCES AND ANNULMENTS	48	3.3	2.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MONTGOMERY COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	22704	0.4	0.4	17029	0.4	0.4	5675	0.4	0.4
MALES	11117	49.0	48.2	8462	49.7	48.2	2655	46.8	48.0
FEMALES	11587	51.0	51.8	8567	50.3	51.8	3020	53.2	52.0
2. NATURAL INCREASE	88	3.9	4.6	24	1.4	2.1	64	11.3	11.7
LIVE BIRTHS									
3. TOTAL	302	13.3	15.1	186	10.9	12.7	116	20.4	22.1
MALES	151	6.7	7.7	102	6.0	6.8	49	8.6	10.5
FEMALES	151	6.7	7.4	84	4.9	5.9	67	11.8	11.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	300	99.3	99.7	184	98.9	99.7	116	100.0	99.7
PHYSICIAN NOT IN HOSPITAL	1	0.3	0.2	1	0.5	0.1	0	0.0	0.3
#CERTIFIED NURSE MIDWIFE	1	0.3	0.1	1	0.5	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	28	9.3	10.1	9	4.8	7.2	19	16.4	15.0
6. OUT OF WEDLOCK	90	29.8	25.4	17	9.1	7.9	73	62.9	55.1
7. OCCURRENCE									
TOTAL	267	0.3	0.2	155	0.3	0.2	112	0.4	0.3
TO RESIDENTS	215	80.5	82.4	120	77.4	78.9	95	84.8	86.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	26.0	23.8	4	21.2	17.0	4	33.6	35.0
9. FETAL DEATHS	6	19.5	14.4	3	15.9	9.0	3	25.2	23.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	6	100.0	100.0	3	100.0	100.0	3	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	33.3	30.4	0	0.0	0.0	2	66.7	50.0
10. NEONATAL (UNDER 28 DAYS)	2	6.6	9.5	1	5.4	8.1	1	8.6	11.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	13.3	8.3	3	16.2	6.1	1	8.7	12.1
12. INFANT DEATHS (UNDER 1 YEAR)	6	19.9	17.8	4	21.5	14.1	2	17.2	23.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	214	9.4	10.5	162	9.5	10.6	52	9.2	10.4
MALES	117	10.5	12.6	89	10.5	12.6	28	10.5	12.5
FEMALES	97	8.4	8.6	73	8.5	8.7	24	7.9	8.4
14. AGE									
00-04 YEARS	7	4.2	4.6	4	3.7	3.1	3	5.2	7.9
05-14 YEARS	1	0.3	0.7	1	0.4	0.7	0	0.0	0.8
15-24 YEARS	8	2.1	1.4	5	1.9	1.3	3	2.6	1.7
25-34 YEARS	3	0.8	1.5	1	0.4	0.8	2	2.2	3.8
35-44 YEARS	7	2.7	3.4	4	1.9	2.9	3	6.4	5.8
45-54 YEARS	11	4.9	6.9	7	3.9	5.9	4	8.9	10.9
55-64 YEARS	40	16.6	18.6	31	16.2	17.9	9	18.1	21.4
65 AND OVER	137	49.5	53.0	109	48.4	51.5	28	53.9	59.2
15. PLACE OF DEATH									
HOSPITAL	151	70.6	67.7	110	67.9	68.4	41	78.8	65.5
OTHER INSTITUTION	20	9.3	13.7	15	9.3	13.6	5	9.6	14.2
HOME OR NON-INSTITUTION	43	20.1	18.6	37	22.8	18.0	6	11.5	20.4
16. OCCURRENCE									
TOTAL	174	0.4	0.4	136	0.4	0.4	38	0.3	0.3
TO RESIDENTS	149	85.6	84.4	115	84.6	82.8	34	89.5	89.5
OTHER EVENTS									
17. MARRIAGES	134	5.9	5.5						
18. DIVORCES AND ANNULMENTS	76	3.3	3.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MOORE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	51288	0.9	0.8	40217	0.9	0.8	11071	0.8	0.8
MALES	24754	48.3	47.4	19499	48.5	47.7	5255	47.5	46.4
FEMALES	26534	51.7	52.6	20718	51.5	52.3	5816	52.5	53.6
2. NATURAL INCREASE	184	3.6	3.6	70	1.7	1.7	114	10.3	10.3
LIVE BIRTHS									
3. TOTAL	703	13.7	14.5	469	11.7	12.4	234	21.1	22.0
MALES	364	7.1	7.6	252	6.3	6.5	112	10.1	11.6
FEMALES	339	6.6	6.9	217	5.4	5.9	122	11.0	10.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	684	97.3	98.7	451	96.2	98.1	233	99.6	99.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.2	0	0.0	0.3	0	0.0	0.1
#CERTIFIED NURSE MIDWIFE	17	2.4	0.8	17	3.6	1.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.3	0	0.0	0.0
5. PREMATURE BIRTHS	53	7.5	8.4	26	5.5	5.6	27	11.5	13.7
6. OUT OF WEDLOCK	160	22.8	22.0	29	6.2	6.5	131	56.0	52.7
7. OCCURRENCE									
TOTAL	960	1.1	1.2	630	1.1	1.1	330	1.2	1.3
TO RESIDENTS	609	63.4	62.2	387	61.4	61.4	222	67.3	63.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	9	12.7	19.5	7	14.9	16.7	2	8.5	25.0
9. FETAL DEATHS	4	5.7	7.8	2	4.2	6.6	2	8.5	10.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	2	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	25.0	25.9	0	0.0	6.7	1	50.0	50.0
10. NEONATAL (UNDER 28 DAYS)	5	7.1	11.7	5	10.7	10.2	0	0.0	14.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	2.9	3.6	1	2.2	1.3	1	4.3	7.9
12. INFANT DEATHS (UNDER 1 YEAR)	7	10.0	15.2	6	12.8	11.5	1	4.3	22.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	519	10.1	10.9	399	9.9	10.7	120	10.8	11.6
MALES	281	11.4	12.8	207	10.6	12.3	74	14.1	14.6
FEMALES	238	9.0	9.2	192	9.3	9.2	46	7.9	9.1
14. AGE									
00-04 YEARS	7	2.1	3.9	6	2.5	2.9	1	1.1	6.3
05-14 YEARS	0	0.0	0.4	0	0.0	0.4	0	0.0	0.4
15-24 YEARS	8	0.9	1.2	7	1.1	1.2	1	0.5	1.0
25-34 YEARS	11	1.5	1.7	6	1.0	1.2	5	3.2	3.6
35-44 YEARS	10	1.8	3.5	5	1.1	2.7	5	4.8	6.9
45-54 YEARS	43	8.2	8.3	26	6.0	6.4	17	18.3	16.9
55-64 YEARS	78	12.8	16.6	62	12.1	15.0	16	16.9	23.7
65 AND OVER	362	46.7	52.4	287	45.4	51.3	75	52.8	57.6
15. PLACE OF DEATH									
HOSPITAL	334	64.4	69.1	262	65.7	69.3	72	60.0	68.2
OTHER INSTITUTION	78	15.0	14.3	60	15.0	14.4	18	15.0	13.8
HOME OR NON-INSTITUTION	107	20.6	16.7	77	19.3	16.2	30	25.0	18.0
16. OCCURRENCE									
TOTAL	683	1.4	1.4	530	1.4	1.4	153	1.2	1.3
TO RESIDENTS	445	65.2	64.8	345	65.1	65.2	100	65.4	63.4
OTHER EVENTS									
17. MARRIAGES	354	6.9	6.7						
18. DIVORCES AND ANNULMENTS	240	4.7	4.3						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

NASH COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	68385	1.1	1.2	45729	1.0	1.0	22656	1.6	1.7
MALES	32509	47.5	47.2	21945	48.0	47.5	10564	46.6	46.7
FEMALES	35876	52.5	52.8	23784	52.0	52.5	12092	53.4	53.3
2. NATURAL INCREASE	382	5.6	5.8	131	2.9	3.1	251	11.1	11.1
LIVE BIRTHS									
3. TOTAL	1024	15.0	15.2	557	12.2	12.3	467	20.6	21.0
MALES	517	7.6	7.6	304	6.6	6.4	213	9.4	10.1
FEMALES	507	7.4	7.5	253	5.5	5.9	254	11.2	10.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1020	99.6	99.6	554	99.5	99.5	466	99.8	99.6
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.3	1	0.2	0.3	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	3	0.3	0.1	2	0.4	0.1	1	0.2	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	85	8.3	7.7	32	5.7	5.1	53	11.3	10.8
6. OUT OF WEDLOCK	267	26.1	24.9	26	4.7	4.5	241	51.6	48.9
7. OCCURRENCE									
TOTAL	1471	1.7	1.9	761	1.3	1.4	710	2.6	2.9
TO RESIDENTS	871	59.2	56.3	464	61.0	59.2	407	57.3	53.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	23	22.2	23.9	7	12.5	15.1	16	33.5	34.3
9. FETAL DEATHS	13	12.5	12.2	2	3.6	8.6	11	23.0	16.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	13	100.0	95.2	2	100.0	100.0	11	100.0	92.3
PHYSICIAN NOT IN HOSPITAL	0	0.0	4.8	0	0.0	0.0	0	0.0	7.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	7	53.8	44.4	1	50.0	16.7	6	54.5	61.5
10. NEONATAL (UNDER 28 DAYS)	10	9.8	11.9	5	9.0	6.5	5	10.7	18.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	2.0	5.3	1	1.8	2.9	1	2.2	8.2
12. INFANT DEATHS (UNDER 1 YEAR)	12	11.7	17.2	6	10.8	9.4	6	12.8	26.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	642	9.4	9.4	426	9.3	9.1	216	9.5	9.9
MALES	351	10.8	11.4	230	10.5	10.6	121	11.5	12.9
FEMALES	291	8.1	7.6	196	8.2	7.8	95	7.9	7.2
14. AGE									
00-04 YEARS	13	2.7	4.4	6	2.2	2.2	7	3.4	7.2
05-14 YEARS	3	0.3	0.4	1	0.2	0.3	2	0.5	0.4
15-24 YEARS	11	0.9	1.6	8	1.1	1.7	3	0.6	1.5
25-34 YEARS	15	1.3	1.8	6	0.8	1.1	9	2.6	3.8
35-44 YEARS	32	3.8	3.8	12	1.9	2.5	20	9.4	7.7
45-54 YEARS	56	8.1	8.0	29	5.7	6.2	27	14.4	12.9
55-64 YEARS	102	15.1	16.4	54	10.9	13.3	48	26.4	24.9
65 AND OVER	410	55.6	52.4	310	58.2	53.3	100	49.0	50.1
15. PLACE OF DEATH									
HOSPITAL	429	66.8	66.6	293	68.8	66.5	136	63.0	67.0
OTHER INSTITUTION	87	13.6	16.3	65	15.3	17.3	22	10.2	14.6
HOME OR NON-INSTITUTION	126	19.6	17.0	68	16.0	16.3	58	26.9	18.4
16. OCCURRENCE									
TOTAL	688	1.4	1.4	410	1.1	1.1	278	2.3	2.3
TO RESIDENTS	461	67.0	66.0	299	72.9	71.6	162	58.3	57.8
OTHER EVENTS									
17. MARRIAGES	652	9.5	8.9						
18. DIVORCES AND ANNULMENTS	292	4.3	4.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

NEW HANOVER COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	105591	1.8	1.8	82004	1.8	1.8	23587	1.6	1.7
MALES	50367	47.7	47.6	39572	48.3	48.4	10795	45.8	45.3
FEMALES	55224	52.3	52.4	42432	51.7	51.6	12792	54.2	54.7
2. NATURAL INCREASE	461	4.4	5.2	302	3.7	4.5	159	6.7	7.3
LIVE BIRTHS									
3. TOTAL	1399	13.2	13.8	978	11.9	12.6	421	17.8	17.7
MALES	706	6.7	7.1	498	6.1	6.5	208	8.8	9.0
FEMALES	693	6.6	6.7	480	5.9	6.1	213	9.0	8.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1394	99.6	99.6	973	99.5	99.5	421	100.0	99.9
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	103	7.4	7.8	55	5.6	6.2	48	11.4	11.7
6. OUT OF WEDLOCK	294	21.0	19.8	68	7.0	6.5	226	53.7	50.6
7. OCCURRENCE									
TOTAL	2500	3.0	2.8	1604	2.8	2.7	896	3.3	3.0
TO RESIDENTS	1381	55.2	57.5	967	60.3	60.9	414	46.2	50.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	23	16.3	15.7	14	14.2	12.4	9	21.0	23.3
9. FETAL DEATHS	14	9.9	8.0	7	7.1	6.4	7	16.4	11.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	14	100.0	100.0	7	100.0	100.0	7	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	5	35.7	37.5	1	14.3	9.7	4	57.1	72.0
10. NEONATAL (UNDER 28 DAYS)	9	6.4	7.7	7	7.2	6.0	2	4.8	11.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	7	5.0	4.1	2	2.1	2.5	5	11.9	7.8
12. INFANT DEATHS (UNDER 1 YEAR)	16	11.4	11.7	9	9.2	8.5	7	16.6	19.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	938	8.9	8.6	676	8.2	8.1	262	11.1	10.4
MALES	517	10.3	9.8	377	9.5	9.1	140	13.0	12.5
FEMALES	421	7.6	7.5	299	7.0	7.1	122	9.5	8.7
14. AGE									
00-04 YEARS	18	2.6	2.7	9	1.8	1.8	9	4.6	5.1
05-14 YEARS	3	0.2	0.4	2	0.2	0.4	1	0.2	0.3
15-24 YEARS	20	1.0	1.1	19	1.3	1.2	1	0.2	0.7
25-34 YEARS	23	1.2	1.2	18	1.2	0.9	5	1.3	2.2
35-44 YEARS	37	2.8	2.4	22	2.0	1.6	15	6.4	6.5
45-54 YEARS	61	5.8	7.0	47	5.5	5.9	14	7.5	11.2
55-64 YEARS	196	19.2	18.1	130	16.1	15.9	66	30.9	24.9
65 AND OVER	580	53.3	54.2	429	50.7	54.7	151	62.2	52.6
15. PLACE OF DEATH									
HOSPITAL	624	66.5	64.7	451	66.7	64.2	173	66.0	65.8
OTHER INSTITUTION	141	15.0	18.1	112	16.6	19.2	29	11.1	15.2
HOME OR NON-INSTITUTION	173	18.4	17.3	113	16.7	16.6	60	22.9	19.1
16. OCCURRENCE									
TOTAL	1177	2.4	2.3	837	2.2	2.1	340	2.8	2.6
TO RESIDENTS	844	71.7	71.2	605	72.3	71.4	239	70.3	70.8
OTHER EVENTS									
17. MARRIAGES	921	8.7	8.2						
18. DIVORCES AND ANNULMENTS	659	6.2	6.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

NORTHAMPTON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	22494	0.4	0.4	8791	0.2	0.2	13703	0.9	1.0
MALES	11051	49.1	49.3	4362	49.6	50.2	6689	48.8	48.7
FEMALES	11443	50.9	50.7	4429	50.4	49.8	7014	51.2	51.3
2. NATURAL INCREASE	68	3.0	4.1	-31	-3.5	-2.4	99	7.2	8.2
LIVE BIRTHS									
3. TOTAL	319	14.2	14.6	86	9.8	9.7	233	17.0	17.7
MALES	156	6.9	7.6	41	4.7	5.3	115	8.4	9.0
FEMALES	163	7.2	7.0	45	5.1	4.4	118	8.6	8.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	302	94.7	88.5	84	97.7	96.8	218	93.6	85.6
PHYSICIAN NOT IN HOSPITAL	13	4.1	8.7	1	1.2	2.5	12	5.2	10.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	2.4	0	0.0	0.2	0	0.0	3.2
5. PREMATURE BIRTHS	27	8.5	9.3	4	4.7	4.8	23	9.9	10.9
6. OUT OF WEDLOCK	123	38.6	35.2	6	7.0	5.5	117	50.2	45.5
7. OCCURRENCE									
TOTAL	23	0.0	0.1	1	0.0	0.0	22	0.1	0.2
TO RESIDENTS	17	73.9	64.9	1	100.0	44.8	16	72.7	67.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	24.8	32.8	1	11.5	10.2	7	29.8	37.9
9. FETAL DEATHS	3	9.3	14.6	1	11.5	11.4	2	8.5	15.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	100.0	1	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	32.0	0	0.0	0.0	0	0.0	40.0
10. NEONATAL (UNDER 28 DAYS)	5	15.7	18.4	0	0.0	6.9	5	21.5	22.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	6.4	6.7	0	0.0	0.0	2	8.8	9.0
12. INFANT DEATHS (UNDER 1 YEAR)	7	21.9	25.0	0	0.0	6.9	7	30.0	31.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	251	11.2	10.5	117	13.3	12.1	134	9.6	9.5
MALES	127	11.5	11.6	57	13.1	12.6	70	10.5	11.0
FEMALES	124	10.8	9.4	60	13.5	11.6	64	9.1	8.1
14. AGE									
00-04 YEARS	8	5.5	6.1	0	0.0	1.5	8	7.5	7.6
05-14 YEARS	1	0.3	0.7	1	1.0	0.6	0	0.0	0.7
15-24 YEARS	3	0.7	1.0	1	0.7	1.1	2	0.7	1.0
25-34 YEARS	6	1.9	1.7	1	0.8	0.8	5	2.5	2.3
35-44 YEARS	7	3.0	3.6	0	0.0	0.6	7	5.5	6.1
45-54 YEARS	15	6.6	8.2	3	3.0	5.2	12	9.4	10.7
55-64 YEARS	37	14.5	15.4	9	7.5	13.1	28	20.9	17.5
65 AND OVER	174	56.5	51.2	102	65.0	52.9	72	47.8	49.3
15. PLACE OF DEATH									
HOSPITAL	171	68.1	63.5	80	68.4	63.7	91	67.9	63.4
OTHER INSTITUTION	26	10.4	15.1	13	11.1	16.9	13	9.7	13.6
HOME OR NON-INSTITUTION	54	21.5	21.4	24	20.5	19.4	30	22.4	23.0
16. OCCURRENCE									
TOTAL	69	0.1	0.2	35	0.1	0.1	34	0.3	0.3
TO RESIDENTS	62	89.9	88.9	30	85.7	84.0	32	94.1	93.3
OTHER EVENTS									
17. MARRIAGES	138	6.1	4.9						
18. DIVORCES AND ANNULMENTS	46	2.0	2.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ONSLOW COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	113448	1.9	2.0	85413	1.9	2.1	28035	1.9	1.8
MALES	67288	59.3	61.0	49956	58.5	60.9	17332	61.8	61.3
FEMALES	46160	40.7	39.0	35457	41.5	39.1	10703	38.2	38.7
2. NATURAL INCREASE	2339	20.6	20.5	1782	20.9	20.0	557	19.9	22.5
LIVE BIRTHS									
3. TOTAL	2786	24.6	24.3	2136	25.0	23.9	650	23.2	26.1
MALES	1435	12.6	12.5	1092	12.8	12.2	343	12.2	13.4
FEMALES	1351	11.9	11.9	1044	12.2	11.7	307	11.0	12.6
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	2659	95.4	98.0	2040	95.5	98.0	619	95.2	97.9
PHYSICIAN NOT IN HOSPITAL	2	0.1	0.2	1	0.0	0.2	1	0.2	0.2
#CERTIFIED NURSE MIDWIFE	106	3.8	1.1	82	3.8	1.2	24	3.7	1.1
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.2	0	0.0	0.2
5. PREMATURE BIRTHS	176	6.3	6.8	114	5.3	5.9	62	9.5	9.9
6. OUT OF WEDLOCK	178	6.4	6.4	92	4.3	3.6	86	13.2	16.0
7. OCCURRENCE									
TOTAL	2815	3.3	3.3	2141	3.7	3.8	674	2.5	2.4
TO RESIDENTS	2689	95.5	95.9	2059	96.2	96.4	630	93.5	94.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	36	12.9	16.4	24	11.2	15.1	12	18.3	21.2
9. FETAL DEATHS	14	5.0	7.1	10	4.7	6.6	4	6.1	8.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	14	100.0	97.0	10	100.0	97.2	4	100.0	96.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.0	0	0.0	0.0	0	0.0	3.6
#CERTIFIED NURSE MIDWIFE	0	0.0	1.0	0	0.0	1.4	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	21.4	13.0	1	10.0	6.9	2	50.0	28.6
10. NEONATAL (UNDER 28 DAYS)	22	7.9	9.4	14	6.6	8.5	8	12.3	12.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	18	6.5	4.7	12	5.7	4.4	6	9.3	5.8
12. INFANT DEATHS (UNDER 1 YEAR)	40	14.4	14.1	26	12.2	12.9	14	21.5	18.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	447	3.9	3.8	354	4.1	3.9	93	3.3	3.6
MALES	271	4.0	3.9	216	4.3	3.9	55	3.2	3.7
FEMALES	176	3.8	3.8	138	3.9	3.9	38	3.6	3.5
14. AGE									
00-04 YEARS	40	3.9	4.6	26	3.5	4.2	14	5.2	5.9
05-14 YEARS	4	0.3	0.4	3	0.3	0.4	1	0.3	0.2
15-24 YEARS	32	0.7	0.7	28	0.9	0.7	4	0.3	0.7
25-34 YEARS	18	1.0	0.9	15	1.1	0.9	3	0.7	0.9
35-44 YEARS	26	2.6	2.6	22	2.7	2.4	4	2.2	3.4
45-54 YEARS	41	5.6	7.7	30	5.0	7.3	11	8.7	10.0
55-64 YEARS	69	13.2	17.3	52	11.8	16.9	17	20.9	19.6
65 AND OVER	217	49.1	52.9	178	48.8	55.1	39	50.3	43.9
15. PLACE OF DEATH									
HOSPITAL	322	72.0	71.6	258	72.9	72.0	64	68.8	69.5
OTHER INSTITUTION	69	15.4	16.6	54	15.3	15.9	15	16.1	19.8
HOME OR NON-INSTITUTION	56	12.5	11.8	42	11.9	12.1	14	15.1	10.7
16. OCCURRENCE									
TOTAL	392	0.8	0.8	305	0.8	0.8	87	0.7	0.7
TO RESIDENTS	322	82.1	84.3	254	83.3	85.2	68	78.2	80.9
OTHER EVENTS									
17. MARRIAGES	1353	11.9	11.1						
18. DIVORCES AND ANNULMENTS	608	5.4	4.3						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ORANGE COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	77451	1.3	1.3	62801	1.4	1.4	14650	1.0	1.0
MALES	37002	47.8	50.0	30110	47.9	50.6	6892	47.0	47.3
FEMALES	40449	52.2	50.0	32691	52.1	49.4	7758	53.0	52.7
2. NATURAL INCREASE	420	5.4	6.0	342	5.4	5.6	78	5.3	7.8
LIVE BIRTHS									
3. TOTAL	905	11.7	12.0	681	10.8	11.0	224	15.3	16.4
MALES	467	6.0	6.2	352	5.6	5.7	115	7.8	8.5
FEMALES	438	5.7	5.8	329	5.2	5.3	109	7.4	7.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	882	97.5	98.1	659	96.8	97.6	223	99.6	99.6
PHYSICIAN NOT IN HOSPITAL	3	0.3	0.2	3	0.4	0.3	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	12	1.3	0.7	12	1.8	0.9	0	0.0	0.1
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
5. PREMATURE BIRTHS	63	7.0	7.0	36	5.3	5.5	27	12.1	11.5
6. OUT OF WEDLOCK	127	14.0	13.5	30	4.4	4.3	97	43.3	40.8
7. OCCURRENCE									
TOTAL	1393	1.6	1.7	667	1.2	1.2	726	2.7	2.7
TO RESIDENTS	406	29.1	28.9	228	34.2	34.5	178	24.5	23.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	21	22.9	22.8	8	11.7	15.9	13	56.3	42.9
9. FETAL DEATHS	11	12.0	11.2	4	5.8	7.3	7	30.3	22.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	11	100.0	98.0	4	100.0	100.0	7	100.0	96.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	4	36.4	28.6	0	0.0	8.3	4	57.1	48.0
10. NEONATAL (UNDER 28 DAYS)	10	11.0	11.7	4	5.9	8.6	6	26.8	21.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	5.6	4.2	3	4.4	3.1	2	9.2	7.5
12. INFANT DEATHS (UNDER 1 YEAR)	15	16.6	15.9	7	10.3	11.7	8	35.7	28.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	485	6.3	6.0	339	5.4	5.4	146	10.0	8.6
MALES	282	7.6	6.7	191	6.3	6.0	91	13.2	10.2
FEMALES	203	5.0	5.2	148	4.5	4.8	55	7.1	7.1
14. AGE									
00-04 YEARS	18	4.5	3.4	9	3.0	2.4	9	9.1	6.5
05-14 YEARS	3	0.3	0.4	3	0.5	0.4	0	0.0	0.4
15-24 YEARS	15	0.6	0.6	10	0.5	0.5	5	1.3	1.1
25-34 YEARS	14	0.9	1.1	7	0.5	0.8	7	2.7	2.7
35-44 YEARS	21	2.6	2.7	12	1.9	2.0	9	5.6	5.6
45-54 YEARS	29	5.1	7.0	15	3.3	5.6	14	12.2	12.5
55-64 YEARS	83	16.1	14.5	59	14.4	13.3	24	22.7	18.7
65 AND OVER	302	50.7	50.0	224	48.1	50.9	78	60.1	47.3
15. PLACE OF DEATH									
HOSPITAL	251	51.8	53.3	170	50.1	52.3	81	55.5	55.9
OTHER INSTITUTION	111	22.9	21.5	84	24.8	22.5	27	18.5	18.6
HOME OR NON-INSTITUTION	123	25.4	25.3	85	25.1	25.2	38	26.0	25.4
16. OCCURRENCE									
TOTAL	916	1.8	2.0	557	1.5	1.6	359	2.9	3.1
TO RESIDENTS	310	33.8	29.7	202	36.3	33.4	108	30.1	24.0
OTHER EVENTS									
17. MARRIAGES	567	7.3	7.4						
18. DIVORCES AND ANNULMENTS	299	3.9	4.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

PAMLICO COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	10433	0.2	0.2	7134	0.2	0.2	3299	0.2	0.2
MALES	5021	48.1	47.7	3468	48.6	48.2	1553	47.1	46.5
FEMALES	5412	51.9	52.3	3666	51.4	51.8	1746	52.9	53.5
2. NATURAL INCREASE	57	5.5	2.7	12	1.7	0.0	45	13.6	8.5
LIVE BIRTHS									
3. TOTAL	155	14.9	13.2	83	11.6	11.0	72	21.8	17.9
MALES	81	7.8	6.4	41	5.7	5.3	40	12.1	8.6
FEMALES	74	7.1	6.9	42	5.9	5.7	32	9.7	9.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	155	100.0	99.9	83	100.0	99.7	72	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.3	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	18	11.6	9.9	6	7.2	7.1	12	16.7	13.5
6. OUT OF WEDLOCK	45	29.0	25.9	1	1.2	4.7	44	61.1	53.6
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0		100.0	0		100.0	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	2	12.8	17.7	2	23.8	20.8	0	0.0	13.7
9. FETAL DEATHS	1	6.4	11.8	1	11.9	13.0	0	0.0	10.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	87.5	1	100.0	80.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	12.5	0	0.0	20.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	37.5	0	0.0	20.0	0		66.7
10. NEONATAL (UNDER 28 DAYS)	1	6.5	6.0	1	12.0	7.9	0	0.0	3.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	7.5	0	0.0	2.7	0	0.0	13.9
12. INFANT DEATHS (UNDER 1 YEAR)	1	6.5	13.5	1	12.0	10.5	0	0.0	17.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	98	9.4	10.5	71	10.0	11.0	27	8.2	9.4
MALES	62	12.3	13.0	46	13.3	13.4	16	10.3	12.3
FEMALES	36	6.7	8.2	25	6.8	8.8	11	6.3	7.0
14. AGE									
00-04 YEARS	1	1.4	3.0	1	2.4	1.9	0	0.0	5.1
05-14 YEARS	0	0.0	0.4	0	0.0	0.2	0	0.0	0.7
15-24 YEARS	3	1.8	1.9	3	2.9	2.4	0	0.0	1.2
25-34 YEARS	3	2.0	1.9	2	1.9	1.4	1	2.3	3.2
35-44 YEARS	3	2.6	3.1	1	1.2	1.6	2	6.5	6.8
45-54 YEARS	7	6.0	7.7	6	7.4	8.3	1	2.7	6.6
55-64 YEARS	10	8.8	15.7	5	5.9	14.0	5	17.6	20.8
65 AND OVER	71	48.8	47.5	53	49.4	48.4	18	47.2	44.8
15. PLACE OF DEATH									
HOSPITAL	64	65.3	68.2	45	63.4	70.4	19	70.4	62.5
OTHER INSTITUTION	16	16.3	16.9	13	18.3	16.9	3	11.1	17.1
HOME OR NON-INSTITUTION	18	18.4	14.9	13	18.3	12.7	5	18.5	20.4
16. OCCURRENCE									
TOTAL	26	0.1	0.1	19	0.1	0.0	7	0.1	0.1
TO RESIDENTS	24	92.3	85.4	17	89.5	80.0	7	100.0	94.0
OTHER EVENTS									
17. MARRIAGES	90	8.6	8.2						
18. DIVORCES AND ANNULMENTS	29	2.8	2.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

PASQUOTANK COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	28428	0.5	0.5	17846	0.4	0.4	10582	0.7	0.8
MALES	13654	48.0	48.1	8678	48.6	48.5	4976	47.0	47.3
FEMALES	14774	52.0	51.9	9168	51.4	51.5	5606	53.0	52.7
2. NATURAL INCREASE	171	6.0	6.2	79	4.4	5.3	92	8.7	7.6
LIVE BIRTHS									
3. TOTAL	450	15.8	15.2	257	14.4	14.3	193	18.2	16.8
MALES	224	7.9	7.9	126	7.1	7.3	98	9.3	9.0
FEMALES	226	7.9	7.3	131	7.3	7.0	95	9.0	7.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	403	89.6	94.9	217	84.4	93.0	186	96.4	97.7
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.1	1	0.4	0.2	0	0.0	0.1
#CERTIFIED NURSE MIDWIFE	45	10.0	4.6	38	14.8	6.4	7	3.6	2.1
PERMITTED MIDWIFE	0	0.0	0.3	0	0.0	0.4	0	0.0	0.1
5. PREMATURE BIRTHS	38	8.4	8.4	15	5.8	6.8	23	11.9	10.9
6. OUT OF WEDLOCK	105	23.3	19.6	14	5.4	5.3	91	47.2	40.2
7. OCCURRENCE									
TOTAL	807	1.0	1.0	536	0.9	0.9	271	1.0	1.0
TO RESIDENTS	407	50.4	50.5	229	42.7	45.0	178	65.7	61.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	12	26.1	30.2	7	26.8	23.0	5	25.3	40.4
9. FETAL DEATHS	9	19.6	16.7	4	15.3	11.5	5	25.3	24.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	9	100.0	94.6	4	100.0	100.0	5	100.0	90.9
PHYSICIAN NOT IN HOSPITAL	0	0.0	2.7	0	0.0	0.0	0	0.0	4.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	22.2	27.0	1	25.0	6.7	1	20.0	40.9
10. NEONATAL (UNDER 28 DAYS)	3	6.7	13.8	3	11.7	11.7	0	0.0	16.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.2	4.2	0	0.0	3.1	1	5.2	5.7
12. INFANT DEATHS (UNDER 1 YEAR)	4	8.9	17.9	3	11.7	14.8	1	5.2	22.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	279	9.8	9.1	178	10.0	9.0	101	9.5	9.2
MALES	131	9.6	10.0	79	9.1	9.7	52	10.5	10.7
FEMALES	148	10.0	8.2	99	10.8	8.3	49	8.7	8.0
14. AGE									
00-04 YEARS	6	3.0	4.4	4	3.4	3.8	2	2.5	5.3
05-14 YEARS	0	0.0	0.6	0	0.0	0.6	0	0.0	0.5
15-24 YEARS	4	0.7	1.0	3	0.9	1.2	1	0.4	0.7
25-34 YEARS	10	2.4	1.3	5	1.8	0.9	5	3.5	2.1
35-44 YEARS	8	2.7	3.1	2	1.0	1.3	6	6.5	7.2
45-54 YEARS	16	6.0	7.2	5	2.8	4.6	11	12.3	12.5
55-64 YEARS	48	16.9	17.1	29	15.2	15.7	19	20.4	19.9
65 AND OVER	187	55.4	48.0	130	56.0	47.4	57	54.1	49.5
15. PLACE OF DEATH									
HOSPITAL	197	70.6	71.7	124	69.7	70.8	73	72.3	73.2
OTHER INSTITUTION	36	12.9	13.5	23	12.9	15.0	13	12.9	11.0
HOME OR NON-INSTITUTION	46	16.5	14.8	31	17.4	14.2	15	14.9	15.9
16. OCCURRENCE									
TOTAL	424	0.9	0.9	296	0.8	0.8	128	1.0	1.1
TO RESIDENTS	241	56.8	53.6	154	52.0	48.9	87	68.0	63.5
OTHER EVENTS									
17. MARRIAGES	1918	67.5	71.2						
18. DIVORCES AND ANNULMENTS	158	5.6	4.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

PENDER COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	22511	0.4	0.4	13848	0.3	0.3	8663	0.6	0.6
MALES	11033	49.0	49.3	6915	49.9	49.5	4118	47.5	49.0
FEMALES	11478	51.0	50.7	6933	50.1	50.5	4545	52.5	51.0
2. NATURAL INCREASE	137	6.1	5.6	38	2.7	3.5	99	11.4	8.8
LIVE BIRTHS									
3. TOTAL	321	14.3	14.6	150	10.8	12.4	171	19.7	18.2
MALES	178	7.9	7.6	78	5.6	6.3	100	11.5	9.7
FEMALES	143	6.4	7.0	72	5.2	6.0	71	8.2	8.5
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	320	99.7	97.5	149	99.3	98.0	171	100.0	97.0
PHYSICIAN NOT IN HOSPITAL	1	0.3	2.4	1	0.7	1.9	0	0.0	2.9
#CERTIFIED NURSE MIDWIFE	0	0.0	0.1	0	0.0	0.0	0	0.0	0.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	21	6.5	7.3	4	2.7	4.3	17	9.9	10.6
6. OUT OF WEDLOCK	98	30.5	24.5	5	3.3	3.8	93	54.4	47.5
7. OCCURRENCE									
TOTAL	12	0.0	0.1	10	0.0	0.1	2	0.0	0.2
TO RESIDENTS	6	50.0	58.1	5	50.0	57.1	1	50.0	58.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	18.4	21.5	0	0.0	16.4	6	34.1	27.1
9. FETAL DEATHS	5	15.3	10.4	0	0.0	8.2	5	28.4	12.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	100.0	94.1	0		85.7	5	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	5.9	0		14.3	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	20.0	35.3	0		0.0	1	20.0	60.0
10. NEONATAL (UNDER 28 DAYS)	1	3.1	11.2	0	0.0	8.3	1	5.8	14.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	6.9	0	0.0	2.4	0	0.0	11.9
12. INFANT DEATHS (UNDER 1 YEAR)	1	3.1	18.0	0	0.0	10.6	1	5.8	26.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	184	8.2	9.0	112	8.1	8.8	72	8.3	9.4
MALES	108	9.8	11.2	65	9.4	11.2	43	10.4	11.2
FEMALES	76	6.6	6.9	47	6.8	6.5	29	6.4	7.6
14. AGE									
00-04 YEARS	3	1.9	4.4	2	2.2	2.9	1	1.4	6.1
05-14 YEARS	1	0.3	0.5	1	0.5	0.4	0	0.0	0.6
15-24 YEARS	2	0.5	1.3	1	0.5	1.0	1	0.6	1.7
25-34 YEARS	9	2.6	2.0	6	2.7	1.1	3	2.4	3.8
35-44 YEARS	5	1.9	3.4	3	1.7	2.6	2	2.3	5.2
45-54 YEARS	18	8.0	7.1	9	6.2	5.2	9	11.4	10.6
55-64 YEARS	31	12.9	15.0	22	13.7	14.9	9	11.2	15.2
65 AND OVER	115	41.9	46.0	68	38.8	45.1	47	47.2	47.7
15. PLACE OF DEATH									
HOSPITAL	137	74.5	73.6	78	69.6	74.0	59	81.9	73.1
OTHER INSTITUTION	27	14.7	12.7	19	17.0	12.6	8	11.1	12.9
HOME OR NON-INSTITUTION	20	10.9	13.6	15	13.4	13.4	5	6.9	14.0
16. OCCURRENCE									
TOTAL	131	0.3	0.3	80	0.2	0.3	51	0.4	0.5
TO RESIDENTS	105	80.2	78.4	61	76.2	74.0	44	86.3	85.1
OTHER EVENTS									
17. MARRIAGES	188	8.4	7.7						
18. DIVORCES AND ANNULMENTS	40	1.8	2.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

PERQUIMANS COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	9618	0.2	0.2	6003	0.1	0.1	3615	0.2	0.3
MALES	4595	47.8	47.7	2867	47.8	47.7	1728	47.8	47.5
FEMALES	5023	52.2	52.3	3136	52.2	52.3	1887	52.2	52.5
2. NATURAL INCREASE	43	4.5	4.3	13	2.2	1.4	30	8.3	8.7
LIVE BIRTHS									
3. TOTAL	138	14.3	14.8	70	11.7	12.0	68	18.8	19.1
MALES	79	8.2	7.4	36	6.0	5.8	43	11.9	9.8
FEMALES	59	6.1	7.4	34	5.7	6.2	25	6.9	9.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	132	95.7	98.4	65	92.9	97.0	67	98.5	99.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	5	3.6	1.3	4	5.7	2.4	1	1.5	0.3
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.3	0	0.0	0.0
5. PREMATURE BIRTHS	15	10.9	8.1	7	10.0	4.5	8	11.8	11.6
6. OUT OF WEDLOCK	40	29.0	24.7	5	7.1	3.3	35	51.5	45.1
7. OCCURRENCE									
TOTAL	1	0.0	0.0	1	0.0	0.0	0	0.0	0.0
TO RESIDENTS	1	100.0	100.0	1	100.0	100.0	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	2	14.3	11.7	1	14.1	6.0	1	14.5	17.2
9. FETAL DEATHS	2	14.3	7.3	1	14.1	6.0	1	14.5	8.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	4.4	0	0.0	0.0	0	0.0	8.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	7.2	4.5	0	0.0	3.0	1	14.7	5.8
12. INFANT DEATHS (UNDER 1 YEAR)	1	7.2	8.9	0	0.0	3.0	1	14.7	14.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	95	9.9	10.5	57	9.5	10.6	38	10.5	10.4
MALES	56	12.2	12.3	35	12.2	12.6	21	12.2	11.8
FEMALES	39	7.8	8.9	22	7.0	8.7	17	9.0	9.2
14. AGE									
00-04 YEARS	1	1.4	2.3	0	0.0	1.2	1	3.0	3.7
05-14 YEARS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
15-24 YEARS	0	0.0	1.0	0	0.0	1.3	0	0.0	0.8
25-34 YEARS	0	0.0	0.7	0	0.0	0.3	0	0.0	1.3
35-44 YEARS	4	3.9	3.5	2	2.9	2.3	2	6.2	6.1
45-54 YEARS	7	7.2	6.1	5	7.8	5.8	2	6.1	6.8
55-64 YEARS	18	16.2	14.8	11	13.9	11.5	7	22.1	21.8
65 AND OVER	65	41.8	46.3	39	38.2	46.6	26	48.9	45.8
15. PLACE OF DEATH									
HOSPITAL	70	73.7	75.1	42	73.7	75.0	28	73.7	75.1
OTHER INSTITUTION	11	11.6	12.3	7	12.3	13.4	4	10.5	10.6
HOME OR NON-INSTITUTION	14	14.7	12.7	8	14.0	11.6	6	15.8	14.3
16. OCCURRENCE									
TOTAL	19	0.0	0.0	13	0.0	0.0	6	0.0	0.1
TO RESIDENTS	17	89.5	84.6	11	84.6	78.3	6	100.0	96.8
OTHER EVENTS									
17. MARRIAGES	53	5.5	5.8						
18. DIVORCES AND ANNULMENTS	25	2.6	2.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

PERSON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	29484	0.5	0.5	20027	0.4	0.4	9457	0.7	0.6
MALES	14220	48.2	48.0	9688	48.4	48.0	4532	47.9	48.1
FEMALES	15264	51.8	52.0	10339	51.6	52.0	4925	52.1	51.9
2. NATURAL INCREASE	106	3.6	4.4	71	3.5	3.0	35	3.7	7.4
LIVE BIRTHS									
3. TOTAL	372	12.6	13.5	247	12.3	12.4	125	13.2	16.2
MALES	183	6.2	7.0	130	6.5	6.5	53	5.6	8.1
FEMALES	189	6.4	6.5	117	5.8	5.9	72	7.6	8.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	369	99.2	98.9	244	98.8	98.6	125	100.0	99.6
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.3	0	0.0	0.2	0	0.0	0.4
#CERTIFIED NURSE MIDWIFE	2	0.5	0.3	2	0.8	0.5	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.3	0	0.0	0.0
5. PREMATURE BIRTHS	40	10.8	10.5	22	8.9	8.6	18	14.4	13.9
6. OUT OF WEDLOCK	63	16.9	17.5	9	3.6	3.8	54	43.2	41.0
7. OCCURRENCE									
TOTAL	183	0.2	0.3	104	0.2	0.2	79	0.3	0.3
TO RESIDENTS	165	90.2	88.4	92	88.5	91.3	73	92.4	84.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	11	29.3	22.0	6	24.1	17.4	5	39.7	29.8
9. FETAL DEATHS	3	8.0	5.2	2	8.0	5.0	1	7.9	5.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	100.0	2	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	33.3	20.0	0	0.0	0.0	1	100.0	50.0
10. NEONATAL (UNDER 28 DAYS)	8	21.5	16.8	4	16.2	12.5	4	32.0	24.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.7	3.7	0	0.0	3.4	1	8.3	4.4
12. INFANT DEATHS (UNDER 1 YEAR)	9	24.2	20.5	4	16.2	15.8	5	40.0	28.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	266	9.0	9.2	176	8.8	9.4	90	9.5	8.7
MALES	155	10.9	11.5	97	10.0	11.6	58	12.8	11.3
FEMALES	111	7.3	7.1	79	7.6	7.4	32	6.5	6.4
14. AGE									
00-04 YEARS	11	5.5	4.9	5	3.9	3.8	6	8.2	6.8
05-14 YEARS	3	0.6	0.5	1	0.4	0.3	2	1.1	0.8
15-24 YEARS	7	1.4	1.2	6	1.9	1.5	1	0.5	0.8
25-34 YEARS	2	0.4	1.7	1	0.3	1.4	1	0.6	2.4
35-44 YEARS	12	3.5	2.8	6	2.4	2.1	6	6.1	5.0
45-54 YEARS	13	4.3	6.9	11	4.9	5.9	2	2.7	10.1
55-64 YEARS	45	14.7	13.6	24	10.7	11.5	21	25.2	20.1
65 AND OVER	173	49.4	51.2	122	46.7	51.8	51	57.6	49.3
15. PLACE OF DEATH									
HOSPITAL	192	72.2	76.5	128	72.7	76.2	64	71.1	77.3
OTHER INSTITUTION	34	12.8	11.4	21	11.9	11.4	13	14.4	11.3
HOME OR NON-INSTITUTION	40	15.0	12.1	27	15.3	12.4	13	14.4	11.3
16. OCCURRENCE									
TOTAL	199	0.4	0.4	140	0.4	0.4	59	0.5	0.5
TO RESIDENTS	179	89.9	88.8	127	90.7	89.5	52	88.1	86.9
OTHER EVENTS									
17. MARRIAGES	247	8.4	8.6						
18. DIVORCES AND ANNULMENTS	150	5.1	4.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

PITT COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	92126	1.5	1.5	59767	1.3	1.3	32359	2.2	2.1
MALES	43383	47.1	47.2	28607	47.9	47.7	14776	45.7	46.3
FEMALES	48743	52.9	52.8	31160	52.1	52.3	17583	54.3	53.7
2. NATURAL INCREASE	558	6.1	7.6	272	4.6	5.1	286	8.8	12.4
LIVE BIRTHS									
3. TOTAL	1299	14.1	15.7	703	11.8	12.2	596	18.4	22.6
MALES	655	7.1	7.9	356	6.0	6.2	299	9.2	11.2
FEMALES	644	7.0	7.8	347	5.8	5.9	297	9.2	11.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1295	99.7	99.9	701	99.7	99.9	594	99.7	99.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	118	9.1	9.1	43	6.1	5.6	75	12.6	12.7
6. OUT OF WEDLOCK	330	25.4	26.0	24	3.4	3.6	306	51.3	49.3
7. OCCURRENCE									
TOTAL	1960	2.3	2.1	1024	1.8	1.6	936	3.5	3.2
TO RESIDENTS	1249	63.7	71.8	670	65.4	71.5	579	61.9	72.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	25	19.1	22.1	8	11.3	14.8	17	28.1	29.7
9. FETAL DEATHS	12	9.2	10.8	3	4.2	7.1	9	14.9	14.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	12	100.0	100.0	3	100.0	100.0	9	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	6	50.0	29.2	1	33.3	8.3	5	55.6	39.6
10. NEONATAL (UNDER 28 DAYS)	13	10.0	11.4	5	7.1	7.7	8	13.4	15.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	8	6.2	4.3	3	4.3	2.1	5	8.5	6.6
12. INFANT DEATHS (UNDER 1 YEAR)	21	16.2	15.6	8	11.4	9.8	13	21.8	21.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	741	8.0	8.1	431	7.2	7.1	310	9.6	10.1
MALES	401	9.2	9.7	231	8.1	8.4	170	11.5	12.3
FEMALES	340	7.0	6.7	200	6.4	5.9	140	8.0	8.2
14. AGE									
00-04 YEARS	24	3.8	4.3	9	2.8	2.5	15	5.0	6.4
05-14 YEARS	7	0.5	0.4	3	0.4	0.3	4	0.6	0.6
15-24 YEARS	26	1.1	0.9	16	0.9	0.8	10	1.4	1.1
25-34 YEARS	29	1.8	1.8	19	1.8	1.4	10	1.9	2.7
35-44 YEARS	30	3.1	3.4	13	1.9	1.8	17	6.0	7.2
45-54 YEARS	67	8.4	8.4	32	5.8	6.5	35	14.2	12.7
55-64 YEARS	135	18.0	17.8	71	14.2	14.2	64	25.6	25.1
65 AND OVER	423	52.5	52.9	268	52.3	52.3	155	52.9	53.9
15. PLACE OF DEATH									
HOSPITAL	414	55.9	53.5	247	57.3	54.7	167	53.9	51.9
OTHER INSTITUTION	113	15.2	16.8	75	17.4	17.6	38	12.3	15.8
HOME OR NON-INSTITUTION	214	28.9	29.7	109	25.3	27.7	105	33.9	32.4
16. OCCURRENCE									
TOTAL	988	2.0	1.7	550	1.5	1.3	438	3.6	3.0
TO RESIDENTS	653	66.1	68.2	370	67.3	67.7	283	64.6	68.8
OTHER EVENTS									
17. MARRIAGES	793	8.6	8.6						
18. DIVORCES AND ANNULMENTS	398	4.3	4.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

POLK COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	13416	0.2	0.2	12176	0.3	0.3	1240	0.1	0.1
MALES	6359	47.4	45.9	5779	47.5	46.3	580	46.8	43.1
FEMALES	7057	52.6	54.1	6397	52.5	53.7	660	53.2	56.9
2. NATURAL INCREASE	-19	-1.4	-2.8	-21	-1.7	-3.0	2	1.6	-0.9
LIVE BIRTHS									
3. TOTAL	140	10.4	10.2	123	10.1	9.8	17	13.7	13.8
MALES	64	4.8	5.2	60	4.9	5.0	4	3.2	7.1
FEMALES	76	5.7	5.0	63	5.2	4.8	13	10.5	6.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	135	96.4	97.7	120	97.6	97.7	15	88.2	97.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.2	0	0.0	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	0.7	0.2	1	0.8	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	9	6.4	9.0	7	5.7	8.0	2	11.8	15.4
6. OUT OF WEDLOCK	18	12.9	12.3	8	6.5	5.3	10	58.8	56.0
7. OCCURRENCE									
TOTAL	91	0.1	0.1	75	0.1	0.1	16	0.1	0.1
TO RESIDENTS	60	65.9	63.4	47	62.7	59.3	13	81.3	81.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	2	14.2	22.5	2	16.1	19.2	0	0.0	42.6
9. FETAL DEATHS	1	7.1	15.0	1	8.1	12.2	0	0.0	31.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	1	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	50.0	0	0.0	28.6	0		100.0
10. NEONATAL (UNDER 28 DAYS)	1	7.1	7.6	1	8.1	7.1	0	0.0	11.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	4.6	0	0.0	3.6	0	0.0	11.1
12. INFANT DEATHS (UNDER 1 YEAR)	1	7.1	12.2	1	8.1	10.6	0	0.0	22.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	159	11.9	13.0	144	11.8	12.9	15	12.1	14.7
MALES	94	14.8	16.1	85	14.7	16.0	9	15.5	17.2
FEMALES	65	9.2	10.4	59	9.2	10.2	6	9.1	12.8
14. AGE									
00-04 YEARS	1	1.4	2.6	1	1.6	2.1	0	0.0	5.3
05-14 YEARS	0	0.0	0.3	0	0.0	0.4	0	0.0	0.0
15-24 YEARS	3	1.7	1.4	3	1.9	1.1	0	0.0	3.4
25-34 YEARS	1	0.6	1.6	1	0.6	1.1	0	0.0	6.8
35-44 YEARS	5	3.3	3.7	4	2.9	3.7	1	8.8	3.7
45-54 YEARS	11	7.9	7.4	10	7.8	7.1	1	8.8	10.5
55-64 YEARS	21	12.4	14.4	20	12.6	13.6	1	9.2	21.8
65 AND OVER	117	41.8	46.9	105	40.2	45.5	12	65.2	65.4
15. PLACE OF DEATH									
HOSPITAL	98	61.6	61.5	85	59.0	60.8	13	86.7	67.0
OTHER INSTITUTION	31	19.5	21.2	30	20.8	21.2	1	6.7	21.6
HOME OR NON-INSTITUTION	30	18.9	17.3	29	20.1	18.1	1	6.7	11.3
16. OCCURRENCE									
TOTAL	165	0.3	0.4	149	0.4	0.5	16	0.1	0.2
TO RESIDENTS	121	73.3	68.1	110	73.8	66.8	11	68.8	80.4
OTHER EVENTS									
17. MARRIAGES	96	7.2	6.0						
18. DIVORCES AND ANNULMENTS	39	2.9	2.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

RANDOLPH COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	93071	1.6	1.5	86779	1.9	1.9	6292	0.4	0.4
MALES	45385	48.8	48.6	42381	48.8	48.7	3004	47.7	48.1
FEMALES	47686	51.2	51.4	44398	51.2	51.3	3288	52.3	51.9
2. NATURAL INCREASE	515	5.5	5.6	477	5.5	5.6	38	6.0	5.5
LIVE BIRTHS									
3. TOTAL	1147	12.3	12.9	1050	12.1	12.7	97	15.4	16.0
MALES	585	6.3	6.6	541	6.2	6.5	44	7.0	8.1
FEMALES	562	6.0	6.3	509	5.9	6.2	53	8.4	8.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1121	97.7	98.6	1027	97.8	98.7	94	96.9	97.9
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.2	0	0.0	0.2	0	0.0	0.4
#CERTIFIED NURSE MIDWIFE	18	1.6	0.5	17	1.6	0.6	1	1.0	0.2
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	80	7.0	6.6	67	6.4	6.2	13	13.4	11.3
6. OUT OF WEDLOCK	114	9.9	9.7	64	6.1	6.2	50	51.5	47.5
7. OCCURRENCE									
TOTAL	484	0.6	0.6	414	0.7	0.8	70	0.3	0.3
TO RESIDENTS	435	89.9	87.2	371	89.6	86.3	64	91.4	93.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	11	9.5	15.4	9	8.5	14.2	2	20.2	28.7
9. FETAL DEATHS	9	7.8	9.1	7	6.6	7.7	2	20.2	24.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	9	100.0	100.0	7	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	22.2	19.2	1	14.3	5.0	1	50.0	66.7
10. NEONATAL (UNDER 28 DAYS)	2	1.7	6.4	2	1.9	6.6	0	0.0	4.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	3.9	0	0.0	2.9	0	0.0	14.8
12. INFANT DEATHS (UNDER 1 YEAR)	2	1.7	10.3	2	1.9	9.5	0	0.0	18.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	632	6.8	7.4	573	6.6	7.1	59	9.4	10.5
MALES	372	8.2	9.1	339	8.0	8.8	33	11.0	13.0
FEMALES	260	5.5	5.7	234	5.3	5.5	26	7.9	8.2
14. AGE									
00-04 YEARS	5	0.8	2.5	5	0.9	2.2	0	0.0	4.8
05-14 YEARS	5	0.3	0.3	3	0.2	0.3	2	1.7	0.8
15-24 YEARS	17	1.1	1.6	15	1.0	1.6	2	1.6	1.8
25-34 YEARS	17	1.1	1.3	13	0.9	1.2	4	3.9	2.6
35-44 YEARS	25	2.0	2.1	21	1.8	1.8	4	5.3	6.5
45-54 YEARS	48	4.7	5.6	44	4.5	5.0	4	7.3	15.6
55-64 YEARS	113	12.4	13.6	100	11.7	12.7	13	25.2	27.3
65 AND OVER	402	42.0	43.0	372	41.6	42.6	30	48.2	49.0
15. PLACE OF DEATH									
HOSPITAL	391	61.9	61.3	353	61.6	61.3	38	64.4	61.3
OTHER INSTITUTION	111	17.6	19.0	101	17.6	19.2	10	16.9	16.9
HOME OR NON-INSTITUTION	130	20.6	19.7	119	20.8	19.4	11	18.6	21.7
16. OCCURRENCE									
TOTAL	438	0.9	0.9	391	1.0	1.1	47	0.4	0.4
TO RESIDENTS	395	90.2	89.1	353	90.3	89.3	42	89.4	87.1
OTHER EVENTS									
17. MARRIAGES	649	7.0	7.0						
18. DIVORCES AND ANNULMENTS	353	3.8	3.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

RICHMOND COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	45853	0.8	0.8	33145	0.7	0.7	12708	0.9	0.9
MALES	21948	47.9	47.5	15982	48.2	47.7	5966	46.9	47.1
FEMALES	23905	52.1	52.5	17163	51.8	52.3	6742	53.1	52.9
2. NATURAL INCREASE	182	4.0	5.4	64	1.9	3.4	118	9.3	10.5
LIVE BIRTHS									
3. TOTAL	628	13.7	15.5	378	11.4	13.3	250	19.7	21.0
MALES	336	7.3	8.1	211	6.4	7.0	125	9.8	10.8
FEMALES	292	6.4	7.4	167	5.0	6.3	125	9.8	10.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	618	98.4	99.1	373	98.7	99.5	245	98.0	98.5
PHYSICIAN NOT IN HOSPITAL	8	1.3	0.7	3	0.8	0.3	5	2.0	1.3
#CERTIFIED NURSE MIDWIFE	1	0.2	0.1	1	0.3	0.1	0	0.0	0.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	49	7.8	8.1	18	4.8	6.1	31	12.4	11.3
6. OUT OF WEDLOCK	155	24.7	22.2	39	10.3	8.2	116	46.4	44.4
7. OCCURRENCE									
TOTAL	470	0.6	0.7	271	0.5	0.6	199	0.7	0.9
TO RESIDENTS	424	90.2	89.5	243	89.7	90.7	181	91.0	88.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	16	25.2	23.9	8	20.9	20.0	8	31.6	30.0
9. FETAL DEATHS	8	12.6	15.7	5	13.1	12.4	3	11.9	21.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	100.0	94.4	5	100.0	92.3	3	100.0	96.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.9	0	0.0	3.8	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	37.5	38.9	1	20.0	23.1	2	66.7	53.6
10. NEONATAL (UNDER 28 DAYS)	8	12.7	8.3	3	7.9	7.7	5	20.0	9.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	1.6	6.9	1	2.7	4.9	0	0.0	10.0
12. INFANT DEATHS (UNDER 1 YEAR)	9	14.3	15.1	4	10.6	12.5	5	20.0	19.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	446	9.7	10.1	314	9.5	9.9	132	10.4	10.5
MALES	233	10.6	11.5	158	9.9	11.4	75	12.6	11.9
FEMALES	213	8.9	8.7	156	9.1	8.5	57	8.5	9.2
14. AGE									
00-04 YEARS	13	3.9	3.9	6	2.7	3.3	7	6.1	5.1
05-14 YEARS	5	0.7	0.4	2	0.4	0.4	3	1.2	0.4
15-24 YEARS	9	1.2	1.6	6	1.1	1.3	3	1.2	2.0
25-34 YEARS	9	1.3	1.5	6	1.2	1.2	3	1.6	2.3
35-44 YEARS	10	1.9	3.1	6	1.5	2.7	4	3.6	4.8
45-54 YEARS	39	8.2	9.0	29	7.8	7.9	10	9.5	13.0
55-64 YEARS	90	18.2	18.4	63	16.4	16.0	27	24.4	26.3
65 AND OVER	271	49.7	54.0	196	48.9	54.5	75	52.0	52.4
15. PLACE OF DEATH									
HOSPITAL	392	87.9	84.0	274	87.3	84.7	118	89.4	82.3
OTHER INSTITUTION	39	8.7	11.0	26	8.3	10.0	13	9.8	13.4
HOME OR NON-INSTITUTION	15	3.4	5.0	14	4.5	5.3	1	0.8	4.3
16. OCCURRENCE									
TOTAL	292	0.6	0.6	191	0.5	0.6	101	0.8	0.8
TO RESIDENTS	276	94.5	91.5	185	96.9	93.1	91	90.1	88.0
OTHER EVENTS									
17. MARRIAGES	213	4.6	4.9						
18. DIVORCES AND ANNULMENTS	201	4.4	4.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ROBESON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	102889	1.7	1.7	40012	0.9	0.9	62877	4.3	4.3
MALES	49058	47.7	47.8	19242	48.1	48.2	29816	47.4	47.5
FEMALES	53831	52.3	52.2	20770	51.9	51.8	33061	52.6	52.5
2. NATURAL INCREASE	936	9.1	10.8	44	1.1	2.2	892	14.2	16.5
LIVE BIRTHS									
3. TOTAL	1764	17.1	19.5	426	10.6	12.1	1338	21.3	24.3
MALES	875	8.5	9.9	218	5.4	6.4	657	10.4	12.2
FEMALES	889	8.6	9.5	208	5.2	5.7	681	10.8	12.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1287	73.0	89.5	300	70.4	88.0	987	73.8	90.0
PHYSICIAN NOT IN HOSPITAL	4	0.2	0.2	0	0.0	0.0	4	0.3	0.2
#CERTIFIED NURSE MIDWIFE	464	26.3	8.6	126	29.6	10.1	338	25.3	8.2
PERMITTED MIDWIFE	0	0.0	1.4	0	0.0	1.8	0	0.0	1.3
5. PREMATURE BIRTHS	166	9.4	9.1	28	6.6	6.1	138	10.3	10.1
6. OUT OF WEDLOCK	592	33.6	30.5	45	10.6	9.9	547	40.9	37.2
7. OCCURRENCE									
TOTAL	1814	2.1	2.5	569	1.0	1.2	1245	4.6	5.0
TO RESIDENTS	1450	79.9	76.0	359	63.1	57.5	1091	67.6	85.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	40	22.4	25.0	10	23.1	21.1	30	22.2	26.2
9. FETAL DEATHS	20	11.2	12.6	6	13.9	8.9	14	10.4	13.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	19	95.0	97.5	6	100.0	100.0	13	92.9	97.0
PHYSICIAN NOT IN HOSPITAL	1	5.0	0.8	0	0.0	0.0	1	7.1	1.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	6	30.0	43.0	0	0.0	14.3	6	42.9	49.0
10. NEONATAL (UNDER 28 DAYS)	20	11.3	12.5	4	9.4	12.4	16	12.0	12.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	9	5.2	6.0	1	2.4	2.6	8	6.1	7.1
12. INFANT DEATHS (UNDER 1 YEAR)	29	16.4	18.4	5	11.7	14.9	24	17.9	19.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	828	8.0	8.7	382	9.5	9.9	446	7.1	7.9
MALES	488	9.9	10.8	214	11.1	11.9	274	9.2	10.0
FEMALES	340	6.3	6.9	168	8.1	8.1	172	5.2	5.9
14. AGE									
00-04 YEARS	36	4.0	5.1	6	2.3	3.1	30	4.6	5.9
05-14 YEARS	7	0.4	0.5	1	0.2	0.2	6	0.4	0.6
15-24 YEARS	23	1.2	1.5	4	0.6	1.0	19	1.5	1.8
25-34 YEARS	29	1.8	2.0	8	1.3	1.3	21	2.1	2.5
35-44 YEARS	43	3.8	3.9	10	2.0	2.4	33	5.4	5.3
45-54 YEARS	70	7.8	8.9	26	5.9	7.4	44	9.5	10.2
55-64 YEARS	147	16.7	18.0	74	17.2	16.3	73	16.1	19.7
65 AND OVER	473	48.7	54.1	253	50.7	56.9	220	46.7	51.1
15. PLACE OF DEATH									
HOSPITAL	623	75.2	74.6	287	75.1	72.3	336	75.3	76.6
OTHER INSTITUTION	122	14.7	15.7	64	16.8	17.6	58	13.0	14.0
HOME OR NON-INSTITUTION	83	10.0	9.7	31	8.1	10.1	52	11.7	9.4
16. OCCURRENCE									
TOTAL	726	1.5	1.6	353	0.9	1.0	373	3.0	3.3
TO RESIDENTS	595	82.0	80.4	276	78.2	76.5	319	85.5	84.2
OTHER EVENTS									
17. MARRIAGES	323	3.1	3.0						
18. DIVORCES AND ANNULMENTS	354	3.4	3.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ROCKINGHAM COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	84637	1.4	1.4	66930	1.5	1.5	17707	1.2	1.2
MALES	40593	48.0	47.3	32297	48.3	47.5	8296	46.9	46.7
FEMALES	44044	52.0	52.7	34633	51.7	52.5	9411	53.1	53.3
2. NATURAL INCREASE	356	4.2	4.0	253	3.8	3.4	103	5.8	6.2
LIVE BIRTHS									
3. TOTAL	1118	13.2	13.7	847	12.7	12.9	271	15.3	17.0
MALES	560	6.6	7.2	426	6.4	6.8	134	7.6	8.7
FEMALES	558	6.6	6.6	421	6.3	6.1	137	7.7	8.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1115	99.7	99.7	845	99.8	99.7	270	99.6	99.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.3	0	0.0	0.2	0	0.0	0.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	76	6.8	8.3	44	5.2	6.7	32	11.8	13.2
6. OUT OF WEDLOCK	182	16.3	15.5	70	8.3	7.1	112	41.3	40.3
7. OCCURRENCE									
TOTAL	851	1.0	1.0	541	0.9	1.0	310	1.1	1.1
TO RESIDENTS	727	85.4	87.5	494	91.3	91.4	233	75.2	80.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	15	13.3	21.0	6	7.1	17.2	9	32.6	32.1
9. FETAL DEATHS	9	8.0	11.4	4	4.7	9.0	5	18.1	18.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	88.9	98.4	4	100.0	100.0	4	80.0	96.2
PHYSICIAN NOT IN HOSPITAL	1	11.1	1.6	0	0.0	0.0	1	20.0	3.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	33.3	20.6	0	0.0	5.4	3	60.0	42.3
10. NEONATAL (UNDER 28 DAYS)	6	5.4	9.7	2	2.4	8.3	4	14.8	13.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	3.6	7.0	3	3.6	5.4	1	3.7	11.8
12. INFANT DEATHS (UNDER 1 YEAR)	10	8.9	16.7	5	5.9	13.7	5	18.5	25.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	762	9.0	9.8	594	8.9	9.5	168	9.5	10.8
MALES	450	11.1	11.9	354	11.0	11.6	96	11.6	13.4
FEMALES	312	7.1	7.8	240	6.9	7.7	72	7.7	8.5
14. AGE									
00-04 YEARS	17	3.1	4.1	12	2.9	3.7	5	3.6	5.4
05-14 YEARS	5	0.4	0.3	5	0.5	0.4	0	0.0	0.3
15-24 YEARS	24	1.7	1.6	15	1.4	1.5	9	2.6	1.6
25-34 YEARS	17	1.3	1.6	9	0.9	1.1	8	2.8	3.3
35-44 YEARS	28	2.7	3.0	19	2.3	2.1	9	4.8	7.1
45-54 YEARS	53	5.8	7.1	40	5.3	6.2	13	8.5	11.5
55-64 YEARS	156	17.5	16.2	117	15.7	14.6	39	26.9	24.9
65 AND OVER	462	46.2	51.8	377	45.0	49.9	85	52.2	61.5
15. PLACE OF DEATH									
HOSPITAL	577	75.7	74.0	447	75.3	73.2	130	77.4	76.5
OTHER INSTITUTION	77	10.1	12.9	65	10.9	13.3	12	7.1	11.5
HOME OR NON-INSTITUTION	108	14.2	13.2	82	13.8	13.5	26	15.5	12.1
16. OCCURRENCE									
TOTAL	596	1.2	1.3	446	1.2	1.3	150	1.2	1.3
TO RESIDENTS	541	90.8	90.3	410	91.9	91.3	131	87.3	87.0
OTHER EVENTS									
17. MARRIAGES	833	9.8	10.7						
18. DIVORCES AND ANNULMENTS	450	5.3	5.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ROWAN COUNTY

ITEM	TOTAL NUMBER 1981	 RATE* 1981	 77-81	WHITE NUMBER 1981	 RATE* 1981	 77-81	NONWHITE NUMBER 1981	 RATE* 1981	 77-81
POPULATION									
1. TOTAL	100231	1.7	1.7	83928	1.9	1.9	16303	1.1	1.1
MALES	48534	48.4	47.9	40682	48.5	48.1	7852	48.2	47.1
FEMALES	51697	51.6	52.1	43246	51.5	51.9	8451	51.8	52.9
2. NATURAL INCREASE	209	2.1	3.6	49	0.6	2.5	160	9.8	9.2
LIVE BIRTHS									
3. TOTAL	1254	12.5	13.2	944	11.2	12.1	310	19.0	19.2
MALES	643	6.4	6.5	480	5.7	6.0	163	10.0	9.4
FEMALES	611	6.1	6.7	464	5.5	6.1	147	9.0	9.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1251	99.8	99.8	943	99.9	99.8	308	99.4	99.8
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.1	0	0.0	0.1	1	0.3	0.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	85	6.8	6.9	51	5.4	5.5	34	11.0	11.4
6. OUT OF WEDLOCK	189	15.1	15.3	49	5.2	5.8	140	45.2	46.4
7. OCCURRENCE									
TOTAL	1043	1.2	1.3	744	1.3	1.4	299	1.1	1.1
TO RESIDENTS	943	90.4	88.9	666	89.5	87.6	277	92.6	92.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	25	19.7	19.5	16	16.8	16.7	9	28.5	28.4
9. FETAL DEATHS	16	12.6	11.4	10	10.5	10.0	6	19.0	15.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	16	100.0	100.0	10	100.0	100.0	6	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	6	37.5	20.5	3	30.0	8.2	3	50.0	45.8
10. NEONATAL (UNDER 28 DAYS)	9	7.2	8.2	6	6.4	6.8	3	9.7	12.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	3.2	2.4	3	3.2	1.7	1	3.3	4.8
12. INFANT DEATHS (UNDER 1 YEAR)	13	10.4	10.5	9	9.5	8.4	4	12.9	17.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1045	10.4	9.6	895	10.7	9.5	150	9.2	9.9
MALES	602	12.4	11.2	508	12.5	11.2	94	12.0	11.7
FEMALES	443	8.6	8.1	387	8.9	8.0	56	6.6	8.4
14. AGE									
00-04 YEARS	14	2.2	2.7	10	2.0	2.2	4	3.2	4.7
05-14 YEARS	4	0.3	0.4	4	0.4	0.4	0	0.0	0.4
15-24 YEARS	23	1.4	1.4	18	1.4	1.5	5	1.4	1.1
25-34 YEARS	22	1.4	1.3	19	1.5	1.1	3	1.2	1.9
35-44 YEARS	23	2.0	2.7	15	1.5	2.2	8	4.9	5.8
45-54 YEARS	73	6.7	6.9	55	5.8	6.1	18	13.3	12.1
55-64 YEARS	167	14.5	14.4	137	13.5	13.3	30	22.4	21.7
65 AND OVER	719	52.8	47.5	637	53.3	46.9	82	49.4	51.8
15. PLACE OF DEATH									
HOSPITAL	744	71.2	68.7	633	70.7	68.2	111	74.0	71.3
OTHER INSTITUTION	208	19.9	19.7	184	20.6	19.9	24	16.0	18.8
HOME OR NON-INSTITUTION	93	8.9	11.6	78	8.7	12.0	15	10.0	9.9
16. OCCURRENCE									
TOTAL	1095	2.2	2.1	894	2.4	2.2	201	1.6	1.7
TO RESIDENTS	777	71.0	68.2	639	71.5	68.6	138	68.7	66.6
OTHER EVENTS									
17. MARRIAGES	837	8.4	7.9						
18. DIVORCES AND ANNULMENTS	388	3.9	3.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

RUTHERFORD COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	54541	0.9	0.9	47638	1.1	1.1	6903	0.5	0.4
MALES	26078	47.8	47.6	22879	48.0	47.5	3199	46.3	48.1
FEMALES	28463	52.2	52.4	24759	52.0	52.5	3704	53.7	51.9
2. NATURAL INCREASE	188	3.4	4.3	124	2.6	3.6	64	9.3	10.3
LIVE BIRTHS									
3. TOTAL	714	13.1	14.0	588	12.3	13.2	126	18.3	20.1
MALES	377	6.9	7.3	302	6.3	6.8	75	10.9	10.8
FEMALES	337	6.2	6.7	286	6.0	6.4	51	7.4	9.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	713	99.9	99.7	587	99.8	99.7	126	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	62	8.7	7.5	44	7.5	6.6	18	14.3	12.1
6. OUT OF WEDLOCK	126	17.6	14.3	47	8.0	7.0	79	62.7	52.9
7. OCCURRENCE									
TOTAL	659	0.8	0.8	542	0.9	0.9	117	0.4	0.4
TO RESIDENTS	557	84.5	86.4	445	82.1	84.5	112	95.7	95.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	15	20.8	22.5	10	16.9	19.8	5	39.4	36.9
9. FETAL DEATHS	6	8.3	12.9	5	8.4	11.8	1	7.9	18.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	6	100.0	100.0	5	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	18.8	0	0.0	10.8	0	0.0	45.5
10. NEONATAL (UNDER 28 DAYS)	9	12.6	9.8	5	8.5	8.1	4	31.7	18.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	2.8	6.3	0	0.0	5.9	2	16.4	8.7
12. INFANT DEATHS (UNDER 1 YEAR)	11	15.4	16.0	5	8.5	13.9	6	47.6	27.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	526	9.6	9.7	464	9.7	9.7	62	9.0	9.8
MALES	291	11.2	11.4	262	11.5	11.4	29	9.1	11.3
FEMALES	235	8.3	8.1	202	8.2	8.1	33	8.9	8.4
14. AGE									
00-04 YEARS	11	2.9	3.9	5	1.6	3.4	6	10.0	6.6
05-14 YEARS	2	0.2	0.4	2	0.3	0.4	0	0.0	0.2
15-24 YEARS	14	1.6	1.8	13	1.8	1.7	1	0.7	2.0
25-34 YEARS	14	1.7	1.2	10	1.4	0.9	4	3.9	3.8
35-44 YEARS	19	2.9	3.2	17	2.9	2.7	2	2.9	8.4
45-54 YEARS	37	6.4	5.8	33	6.3	5.6	4	7.3	7.7
55-64 YEARS	89	15.3	14.1	76	14.4	13.7	13	24.6	18.5
65 AND OVER	340	45.4	48.0	308	45.4	47.7	32	45.6	50.5
15. PLACE OF DEATH									
HOSPITAL	410	77.9	74.7	359	77.4	74.6	51	82.3	75.9
OTHER INSTITUTION	76	14.4	15.0	68	14.7	15.0	8	12.9	15.0
HOME OR NON-INSTITUTION	40	7.6	10.3	37	8.0	10.4	3	4.8	9.1
16. OCCURRENCE									
TOTAL	467	0.9	0.9	408	1.1	1.1	59	0.5	0.4
TO RESIDENTS	409	87.6	88.5	363	89.0	89.2	46	78.0	83.1
OTHER EVENTS									
17. MARRIAGES	274	5.0	5.0						
18. DIVORCES AND ANNULMENTS	265	4.9	4.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

SAMPSON COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	49865	0.6	[illegible]	31981	0.7	0.7	17884	1.2	1.3
MALES	23999	48.1	47.5	15485	48.4	47.9	8514	47.6	46.9
FEMALES	25866	51.9	52.5	16496	51.6	52.1	9370	52.4	53.1
2. NATURAL INCREASE	184	3.7	5.3	42	1.3	2.8	142	7.9	9.9
LIVE BIRTHS									
3. TOTAL	696	14.0	14.9	370	11.6	12.6	326	18.2	18.9
MALES	360	7.2	7.6	190	5.9	6.4	170	9.5	9.6
FEMALES	336	6.7	7.4	180	5.6	6.2	156	8.7	9.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	679	97.6	95.1	362	97.8	96.9	317	97.2	93.0
PHYSICIAN NOT IN HOSPITAL	9	1.3	4.2	6	1.6	2.8	3	0.9	5.8
#CERTIFIED NURSE MIDWIFE	2	0.3	0.1	1	0.3	0.1	1	0.3	0.1
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.1
5. PREMATURE BIRTHS	43	6.2	7.4	19	5.1	5.0	24	7.4	10.2
6. OUT OF WEDLOCK	153	22.0	20.7	23	6.2	4.9	130	39.9	39.2
7. OCCURRENCE									
TOTAL	618	0.7	0.7	299	0.5	0.5	319	1.2	1.2
TO RESIDENTS	521	84.3	84.8	251	83.9	84.3	270	84.6	85.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	18	25.4	27.8	4	10.8	18.5	14	41.4	38.6
9. FETAL DEATHS	14	19.7	14.4	2	5.4	6.0	12	35.5	24.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	14	100.0	92.6	2	100.0	100.0	12	100.0	90.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	7.4	0	0.0	0.0	0	0.0	9.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	9	64.3	40.7	0	0.0	0.0	9	75.0	52.4
10. NEONATAL (UNDER 28 DAYS)	4	5.7	13.6	2	5.4	12.5	2	6.1	14.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	7.2	4.7	3	8.2	4.1	2	6.2	5.4
12. INFANT DEATHS (UNDER 1 YEAR)	9	12.9	18.2	5	13.5	16.6	4	12.3	20.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	512	10.3	9.6	328	10.3	9.9	184	10.3	9.0
MALES	312	13.0	12.1	207	13.4	12.6	105	12.3	11.3
FEMALES	200	7.7	7.3	121	7.3	7.4	79	8.4	7.1
14. AGE									
00-04 YEARS	10	2.7	4.6	6	2.9	4.2	4	2.4	5.1
05-14 YEARS	2	0.2	0.5	2	0.4	0.4	0	0.0	0.6
15-24 YEARS	10	1.2	1.1	7	1.4	1.1	3	0.9	1.1
25-34 YEARS	21	2.8	1.9	6	1.2	1.3	15	5.7	3.1
35-44 YEARS	24	4.2	3.9	16	3.9	3.2	8	4.6	5.4
45-54 YEARS	51	9.9	8.5	30	8.4	7.7	21	13.1	10.3
55-64 YEARS	88	17.4	16.9	52	14.9	16.1	36	22.7	18.7
65 AND OVER	306	49.9	47.4	209	48.7	47.2	97	52.8	47.8
15. PLACE OF DEATH									
HOSPITAL	318	62.1	59.6	211	64.3	62.0	107	58.2	54.8
OTHER INSTITUTION	90	17.6	18.7	51	15.5	17.6	39	21.2	20.7
HOME OR NON-INSTITUTION	104	20.3	21.8	66	20.1	20.4	38	20.7	24.4
16. OCCURRENCE									
TOTAL	383	0.8	0.7	245	0.7	0.6	138	1.1	1.1
TO RESIDENTS	347	90.6	88.3	219	89.4	87.6	128	92.8	89.5
OTHER EVENTS									
17. MARRIAGES	295	5.9	5.1						
18. DIVORCES AND ANNULMENTS	137	2.7	2.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

SCOTLAND COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	32559	0.5	0.5	18699	0.4	0.4	13860	1.0	0.9
MALES	15551	47.8	47.3	9095	48.6	48.0	6456	46.6	46.2
FEMALES	17008	52.2	52.7	9604	51.4	52.0	7404	53.4	53.8
2. NATURAL INCREASE	235	7.2	8.9	74	4.0	5.0	161	11.6	14.8
LIVE BIRTHS									
3. TOTAL	510	15.7	17.7	227	12.1	13.4	283	20.4	24.1
MALES	275	8.4	9.0	117	6.3	6.8	158	11.4	12.4
FEMALES	235	7.2	8.7	110	5.9	6.6	125	9.0	11.7
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	509	99.8	99.8	227	100.0	99.6	282	99.6	99.9
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.1	0	0.0	0.1	1	0.4	0.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	36	7.1	8.7	12	5.3	6.3	24	8.5	10.8
6. OUT OF WEDLOCK	181	35.5	28.6	29	12.8	9.6	152	53.7	44.4
7. OCCURRENCE									
TOTAL	901	1.1	1.2	329	0.6	0.7	572	2.1	2.3
TO RESIDENTS	471	52.3	51.7	204	62.0	59.8	267	46.7	46.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	16	30.8	26.7	5	21.9	20.6	11	37.7	31.7
9. FETAL DEATHS	10	19.2	13.5	1	4.4	7.1	9	30.8	18.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	10	100.0	100.0	1	100.0	100.0	9	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	5	50.0	39.5	0	0.0	11.1	5	55.6	48.3
10. NEONATAL (UNDER 28 DAYS)	6	11.8	13.4	4	17.6	13.5	2	7.1	13.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	7	13.9	8.8	3	13.5	8.1	4	14.2	9.4
12. INFANT DEATHS (UNDER 1 YEAR)	13	25.5	22.0	7	30.8	21.5	6	21.2	22.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	275	8.4	8.8	153	8.2	8.5	122	8.8	9.3
MALES	167	10.7	10.5	93	10.2	9.6	74	11.5	11.8
FEMALES	108	6.3	7.3	60	6.2	7.4	48	6.5	7.2
14. AGE									
00-04 YEARS	16	6.0	5.5	8	6.1	4.1	8	5.9	7.1
05-14 YEARS	2	0.3	0.5	1	0.3	0.3	1	0.3	0.6
15-24 YEARS	15	2.5	1.6	6	1.8	1.5	9	3.3	1.8
25-34 YEARS	11	2.1	1.5	3	1.0	0.9	8	3.4	2.6
35-44 YEARS	8	2.1	3.0	4	1.6	2.3	4	3.1	4.7
45-54 YEARS	29	9.9	8.4	15	7.5	6.4	14	15.2	12.6
55-64 YEARS	44	15.5	19.6	25	13.7	16.3	19	19.0	25.4
65 AND OVER	150	49.5	57.0	91	47.7	59.7	59	52.4	52.9
15. PLACE OF DEATH									
HOSPITAL	200	72.7	76.5	115	75.2	76.0	85	69.7	77.3
OTHER INSTITUTION	25	9.1	9.2	16	10.5	9.4	9	7.4	9.0
HOME OR NON-INSTITUTION	50	18.2	14.2	22	14.4	14.7	28	23.0	13.7
16. OCCURRENCE									
TOTAL	301	0.6	0.6	150	0.4	0.4	151	1.2	1.2
TO RESIDENTS	210	69.8	70.5	109	72.7	75.2	101	66.9	65.1
OTHER EVENTS									
17. MARRIAGES	121	3.7	3.6						
18. DIVORCES AND ANNULMENTS	122	3.7	3.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

STANLY COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	48238	0.8	0.8	42389	0.9	1.0	5849	0.4	0.4
MALES	23286	48.3	48.0	20497	48.4	48.1	2789	47.7	47.8
FEMALES	24952	51.7	52.0	21892	51.6	51.9	3060	52.3	52.2
2. NATURAL INCREASE	178	3.7	3.9	109	2.6	3.2	69	11.8	9.5
LIVE BIRTHS									
3. TOTAL	605	12.5	13.1	482	11.4	12.2	123	21.0	20.6
MALES	327	6.8	6.8	259	6.1	6.3	68	11.6	10.6
FEMALES	278	5.8	6.4	223	5.3	5.9	55	9.4	10.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	601	99.3	99.7	478	99.2	99.7	123	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.0	1	0.2	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	0.2	0.1	1	0.2	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	43	7.1	5.9	31	6.4	4.6	12	9.8	12.3
6. OUT OF WEDLOCK	84	13.9	11.0	21	4.4	3.6	63	51.2	46.8
7. OCCURRENCE									
TOTAL	457	0.5	0.6	330	0.6	0.7	127	0.5	0.4
TO RESIDENTS	398	87.1	81.1	285	86.4	81.6	113	89.0	79.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	13.1	19.1	5	10.3	16.8	3	24.4	30.4
9. FETAL DEATHS	4	6.6	9.7	4	8.2	9.8	0	0.0	9.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	93.3	4	100.0	92.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	10.0	0	0.0	0.0	0		60.0
10. NEONATAL (UNDER 28 DAYS)	4	6.6	9.5	1	2.1	7.1	3	24.4	21.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	3.3	4.3	2	4.2	4.4	0	0.0	3.9
12. INFANT DEATHS (UNDER 1 YEAR)	6	9.9	13.7	3	6.2	11.4	3	24.4	25.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	427	8.9	9.3	373	8.8	9.1	54	9.2	11.0
MALES	226	9.7	10.7	198	9.7	10.5	28	10.0	12.4
FEMALES	201	8.1	7.9	175	8.0	7.7	26	8.5	9.7
14. AGE									
00-04 YEARS	6	1.9	3.2	3	1.1	2.6	3	6.0	6.3
05-14 YEARS	3	0.4	0.3	2	0.3	0.3	1	0.8	0.8
15-24 YEARS	7	0.9	1.2	7	1.0	1.2	0	0.0	1.5
25-34 YEARS	7	1.0	1.3	6	1.0	1.1	1	1.0	2.6
35-44 YEARS	12	2.1	2.3	10	1.9	2.1	2	3.8	4.6
45-54 YEARS	36	6.9	6.8	26	5.4	5.8	10	23.3	18.2
55-64 YEARS	60	11.2	14.6	52	10.7	13.8	8	16.0	21.9
65 AND OVER	296	48.1	49.8	267	47.5	49.0	29	53.9	58.8
15. PLACE OF DEATH									
HOSPITAL	295	69.1	70.4	261	70.0	70.6	34	63.0	68.8
OTHER INSTITUTION	69	16.2	14.8	55	14.7	14.4	14	25.9	17.6
HOME OR NON-INSTITUTION	63	14.8	14.8	57	15.3	15.0	6	11.1	13.6
16. OCCURRENCE									
TOTAL	331	0.7	0.7	292	0.8	0.8	39	0.3	0.4
TO RESIDENTS	308	93.1	90.0	272	93.2	90.6	36	92.3	86.5
OTHER EVENTS									
17. MARRIAGES	328	6.8	6.4						
18. DIVORCES AND ANNULMENTS	161	3.3	3.5						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

STOKES COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	34054	0.6	0.5	31547	0.7	0.7	2507	0.2	0.2
MALES	16700	49.0	48.9	15430	48.9	48.8	1270	50.7	50.3
FEMALES	17354	51.0	51.1	16117	51.1	51.2	1237	49.3	49.7
2. NATURAL INCREASE	166	4.9	5.1	137	4.3	4.8	29	11.6	8.4
LIVE BIRTHS									
3. TOTAL	412	12.1	12.5	367	11.6	12.2	45	17.9	16.4
MALES	209	6.1	6.4	188	6.0	6.3	21	8.4	8.3
FEMALES	203	6.0	6.1	179	5.7	5.9	24	9.6	8.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	411	99.8	99.8	366	99.7	99.8	45	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	0.2	0.1	1	0.3	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	33	8.0	6.3	29	7.9	6.3	4	8.9	7.0
6. OUT OF WEDLOCK	37	9.0	8.1	25	6.8	5.9	12	26.7	29.0
7. OCCURRENCE									
TOTAL	83	0.1	0.1	70	0.1	0.1	13	0.0	0.0
TO RESIDENTS	71	85.5	86.6	58	82.9	85.7	13	100.0	93.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	19.3	17.7	8	21.7	17.9	0	0.0	16.0
9. FETAL DEATHS	2	4.8	8.1	2	5.4	7.8	0	0.0	10.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	2	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	1	50.0	18.8	1	50.0	7.1	0		100.0
10. NEONATAL (UNDER 28 DAYS)	6	14.6	9.7	6	16.3	10.2	0	0.0	5.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.5	5.2	1	2.8	5.1	0	0.0	5.4
12. INFANT DEATHS (UNDER 1 YEAR)	7	17.0	14.8	7	19.1	15.3	0	0.0	10.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	246	7.2	7.4	230	7.3	7.4	16	6.4	8.0
MALES	121	7.2	8.9	109	7.1	8.7	12	9.4	10.9
FEMALES	125	7.2	6.0	121	7.5	6.1	4	3.2	5.2
14. AGE									
00-04 YEARS	7	3.0	3.1	7	3.3	3.2	0	0.0	2.1
05-14 YEARS	3	0.5	0.4	3	0.6	0.5	0	0.0	0.0
15-24 YEARS	8	1.4	1.6	7	1.4	1.4	1	2.0	3.1
25-34 YEARS	2	0.3	1.5	2	0.4	1.3	0	0.0	3.3
35-44 YEARS	7	1.5	1.9	5	1.1	1.7	2	6.7	5.2
45-54 YEARS	12	3.5	3.7	11	3.4	3.5	1	4.4	7.0
55-64 YEARS	43	15.0	13.0	36	13.4	12.2	7	39.1	25.3
65 AND OVER	164	48.4	46.5	159	49.7	46.6	5	26.5	45.3
15. PLACE OF DEATH									
HOSPITAL	200	81.3	77.2	186	80.9	77.7	14	87.5	71.4
OTHER INSTITUTION	14	5.7	9.8	14	6.1	9.8	0	0.0	9.9
HOME OR NON-INSTITUTION	32	13.0	13.0	30	13.0	12.5	2	12.5	18.7
16. OCCURRENCE									
TOTAL	148	0.3	0.3	134	0.4	0.4	14	0.1	0.1
TO RESIDENTS	127	85.8	84.1	116	86.6	84.2	11	78.6	82.7
OTHER EVENTS									
17. MARRIAGES	268	7.9	7.9						
18. DIVORCES AND ANNULMENTS	98	2.9	3.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

SURRY COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	59885	1.0	1.0	56704	1.3	1.3	3181	0.2	0.2
MALES	28877	48.2	47.9	27323	48.2	48.0	1554	48.9	44.5
FEMALES	31008	51.8	52.1	29381	51.8	52.0	1627	51.1	55.5
2. NATURAL INCREASE	163	2.7	4.3	138	2.4	4.1	25	7.9	7.0
LIVE BIRTHS									
3. TOTAL	742	12.4	13.4	691	12.2	13.2	51	16.0	17.4
MALES	387	6.5	6.7	361	6.4	6.6	26	8.2	9.0
FEMALES	355	5.9	6.7	330	5.8	6.6	25	7.9	8.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	742	100.0	99.7	691	100.0	99.7	51	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	49	6.6	6.8	43	6.2	6.4	6	11.8	12.2
6. OUT OF WEDLOCK	58	7.8	7.6	37	5.4	5.5	21	41.2	37.1
7. OCCURRENCE									
TOTAL	637	0.8	0.7	601	1.0	1.1	36	0.1	0.1
TO RESIDENTS	408	64.1	65.6	380	63.2	65.2	28	77.8	74.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	14	18.7	18.1	14	20.0	17.9	0	0.0	20.2
9. FETAL DEATHS	8	10.7	8.5	8	11.4	8.5	0	0.0	8.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	100.0	100.0	8	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	1	12.5	15.2	1	12.5	12.9	0		50.0
10. NEONATAL (UNDER 28 DAYS)	6	8.1	9.6	6	8.7	9.4	0	0.0	12.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	1.4	4.5	1	1.5	4.2	0	0.0	8.3
12. INFANT DEATHS (UNDER 1 YEAR)	7	9.4	14.0	7	10.1	13.6	0	0.0	20.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	579	9.7	9.1	553	9.8	9.1	26	8.2	10.4
MALES	341	11.8	11.1	328	12.0	11.1	13	8.4	12.9
FEMALES	238	7.7	7.3	225	7.7	7.2	13	8.0	8.3
14. AGE									
00-04 YEARS	11	2.8	3.3	10	2.8	3.1	1	3.7	7.0
05-14 YEARS	1	0.1	0.4	1	0.1	0.4	0	0.0	0.0
15-24 YEARS	9	0.9	1.3	8	0.9	1.3	1	1.6	1.4
25-34 YEARS	12	1.3	1.2	11	1.3	1.2	1	2.1	1.5
35-44 YEARS	21	2.8	3.0	21	2.9	2.8	0	0.0	7.7
45-54 YEARS	44	6.7	7.0	43	6.8	6.8	1	3.4	12.7
55-64 YEARS	89	14.3	13.3	87	14.7	13.3	2	6.5	13.2
65 AND OVER	392	51.5	49.0	372	51.0	48.8	20	61.2	55.1
15. PLACE OF DEATH									
HOSPITAL	399	68.9	64.5	384	69.4	64.6	15	57.7	62.3
OTHER INSTITUTION	78	13.5	15.7	77	13.9	16.0	1	3.8	11.0
HOME OR NON-INSTITUTION	102	17.6	19.8	92	16.6	19.4	10	38.5	26.7
16. OCCURRENCE									
TOTAL	516	1.0	1.0	495	1.3	1.3	21	0.2	0.2
TO RESIDENTS	391	75.8	73.9	373	75.4	73.8	18	85.7	76.3
OTHER EVENTS									
17. MARRIAGES	590	9.9	9.5						
18. DIVORCES AND ANNULMENTS	276	4.6	4.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

SWAIN COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	10360	0.2	0.2	7700	0.2	0.2	2660	0.2	0.2
MALES	4990	48.2	50.2	3685	47.9	48.1	1305	49.1	55.8
FEMALES	5370	51.8	49.8	4015	52.1	51.9	1355	50.9	44.2
2. NATURAL INCREASE	55	5.3	6.5	-3	-0.4	2.2	58	21.8	18.5
LIVE BIRTHS									
3. TOTAL	179	17.3	16.7	92	11.9	13.2	87	32.7	26.7
MALES	104	10.0	8.9	56	7.3	6.9	48	18.0	14.4
FEMALES	75	7.2	7.9	36	4.7	6.3	39	14.7	12.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	177	98.9	99.4	90	97.8	99.0	87	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	2	1.1	0.5	2	2.2	0.8	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	15	8.4	5.2	6	6.5	4.8	9	10.3	5.8
6. OUT OF WEDLOCK	42	23.5	17.1	10	10.9	7.8	32	36.8	29.9
7. OCCURRENCE									
TOTAL	137	0.2	0.2	57	0.1	0.1	80	0.3	0.3
TO RESIDENTS	82	59.9	54.0	36	63.2	58.1	46	57.5	49.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	16.6	19.4	2	21.3	17.8	1	11.5	21.6
9. FETAL DEATHS	2	11.0	13.7	2	21.3	11.9	0	0.0	16.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	91.7	2	100.0	100.0	0		83.3
PHYSICIAN NOT IN HOSPITAL	0	0.0	8.3	0	0.0	0.0	0		16.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	1	50.0	33.3	1	50.0	16.7	0		50.0
10. NEONATAL (UNDER 28 DAYS)	1	5.6	5.8	0	0.0	6.0	1	11.5	5.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	7.0	0	0.0	6.0	0	0.0	8.3
12. INFANT DEATHS (UNDER 1 YEAR)	1	5.6	12.7	0	0.0	12.0	1	11.5	13.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	124	12.0	10.3	95	12.3	11.0	29	10.9	8.2
MALES	80	16.0	12.9	65	17.6	14.5	15	11.5	8.8
FEMALES	44	8.2	7.7	30	7.5	7.7	14	10.3	7.5
14. AGE									
00-04 YEARS	1	1.4	3.5	0	0.0	2.5	1	3.9	5.4
05-14 YEARS	0	0.0	0.2	0	0.0	0.2	0	0.0	0.4
15-24 YEARS	3	1.7	2.8	2	1.7	2.9	1	1.8	2.5
25-34 YEARS	3	2.0	2.5	1	0.9	1.6	2	5.2	4.7
35-44 YEARS	6	4.9	3.2	5	5.5	3.2	1	3.3	3.2
45-54 YEARS	7	6.8	6.2	4	4.8	5.8	3	15.4	8.1
55-64 YEARS	19	18.5	16.2	14	16.7	14.3	5	26.6	26.7
65 AND OVER	85	55.7	48.7	69	52.1	48.9	16	78.8	47.9
15. PLACE OF DEATH									
HOSPITAL	90	72.6	66.0	69	72.6	66.3	21	72.4	65.2
OTHER INSTITUTION	22	17.7	20.2	17	17.9	20.1	5	17.2	20.5
HOME OR NON-INSTITUTION	12	9.7	13.8	9	9.5	13.6	3	10.3	14.3
16. OCCURRENCE									
TOTAL	139	0.3	0.2	107	0.3	0.3	32	0.3	0.2
TO RESIDENTS	89	64.0	59.6	69	64.5	59.9	20	62.5	58.6
OTHER EVENTS									
17. MARRIAGES	227	21.9	21.5						
18. DIVORCES AND ANNULMENTS	51	4.9	5.1						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

TRANSYLVANIA COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	23869	0.4	0.4	22487	0.5	0.5	1382	0.1	0.1
MALES	11752	49.2	49.4	11005	48.9	49.0	747	54.1	55.6
FEMALES	12117	50.8	50.6	11482	51.1	51.0	635	45.9	44.4
2. NATURAL INCREASE	44	1.8	4.6	37	1.6	4.4	7	5.1	8.2
LIVE BIRTHS									
3. TOTAL	235	9.8	12.4	221	9.8	12.3	14	10.1	14.2
MALES	131	5.5	6.7	126	5.6	6.6	5	3.6	8.2
FEMALES	104	4.4	5.7	95	4.2	5.7	9	6.5	5.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	233	99.1	99.4	219	99.1	99.4	14	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	1	0.4	0.1	1	0.5	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	12	5.1	7.1	9	4.1	6.6	3	21.4	14.3
6. OUT OF WEDLOCK	23	9.8	8.5	16	7.2	6.5	7	50.0	37.4
7. OCCURRENCE									
TOTAL	245	0.3	0.3	237	0.4	0.5	8	0.0	0.1
TO RESIDENTS	203	82.9	85.9	195	82.3	85.2	8	100.0	97.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	21.0	18.3	4	17.9	17.3	1	71.4	33.0
9. FETAL DEATHS	3	12.6	11.3	3	13.4	12.0	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	100.0	3	100.0	100.0	0		
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
OUT OF WEDLOCK	0	0.0	12.5	0	0.0	12.5	0		
10. NEONATAL (UNDER 28 DAYS)	2	8.5	7.1	1	4.5	5.3	1	71.4	33.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	8.6	2.9	1	4.5	2.3	1	76.9	11.4
12. INFANT DEATHS (UNDER 1 YEAR)	4	17.0	10.0	2	9.0	7.6	2	142.9	44.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	191	8.0	7.8	184	8.2	7.9	7	5.1	5.9
MALES	105	8.9	8.8	100	9.1	8.9	5	6.7	7.0
FEMALES	86	7.1	6.8	84	7.3	6.9	2	3.1	4.6
14. AGE									
00-04 YEARS	5	3.3	2.2	3	2.1	1.7	2	17.5	9.2
05-14 YEARS	2	0.6	0.4	2	0.6	0.4	0	0.0	0.0
15-24 YEARS	3	0.7	0.7	3	0.8	0.8	0	0.0	0.0
25-34 YEARS	4	1.2	1.3	3	0.9	1.2	1	4.7	2.3
35-44 YEARS	9	3.0	2.6	9	3.2	2.6	0	0.0	1.9
45-54 YEARS	14	5.8	4.7	13	5.6	4.5	1	11.1	10.4
55-64 YEARS	20	7.8	12.4	19	7.6	12.2	1	13.5	16.3
65 AND OVER	134	42.4	49.7	132	43.2	49.8	2	20.0	48.0
15. PLACE OF DEATH									
HOSPITAL	126	66.0	66.2	120	65.2	65.6	6	85.7	78.9
OTHER INSTITUTION	28	14.7	15.0	28	15.2	15.3	0	0.0	7.9
HOME OR NON-INSTITUTION	37	19.4	18.8	36	19.6	19.0	1	14.3	13.2
16. OCCURRENCE									
TOTAL	152	0.3	0.3	146	0.4	0.4	6	0.0	0.1
TO RESIDENTS	135	88.8	88.3	129	88.4	87.9	6	100.0	96.8
OTHER EVENTS									
17. MARRIAGES	177	7.4	6.6						
18. DIVORCES AND ANNULMENTS	113	4.7	4.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

TYRRELL COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	4133	0.1	0.1	2534	0.1	0.1	1599	0.1	0.1
MALES	1948	47.1	46.8	1227	48.4	47.2	721	45.1	46.1
FEMALES	2185	52.9	53.2	1307	51.6	52.8	878	54.9	53.9
2. NATURAL INCREASE	30	7.3	5.8	13	5.1	2.2	17	10.6	11.6
LIVE BIRTHS									
3. TOTAL	68	16.5	17.0	39	15.4	14.4	29	18.1	21.2
MALES	24	5.8	8.5	10	3.9	7.1	14	8.8	10.8
FEMALES	44	10.6	8.5	29	11.4	7.3	15	9.4	10.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	67	98.5	99.4	38	97.4	98.9	29	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	9	13.2	10.0	3	7.7	7.3	6	20.7	13.0
6. OUT OF WEDLOCK	18	26.5	24.8	3	7.7	5.6	15	51.7	45.7
7. OCCURRENCE									
TOTAL	1	0.0	0.0	1	0.0	0.0	0	0.0	0.0
TO RESIDENTS	1	100.0	100.0	1	100.0	100.0	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	14.7	17.5	1	25.6	11.2	0	0.0	24.4
9. FETAL DEATHS	0	0.0	8.8	0	0.0	5.6	0	0.0	12.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		100.0	0		100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0		0.0	0		0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		0.0
PERMITTED MIDWIFE	0		0.0	0		0.0	0		0.0
OUT OF WEDLOCK	0		33.3	0		0.0	0		50.0
10. NEONATAL (UNDER 28 DAYS)	1	14.7	8.8	1	25.6	5.6	0	0.0	12.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	3.0	0	0.0	0.0	0	0.0	6.2
12. INFANT DEATHS (UNDER 1 YEAR)	1	14.7	11.8	1	25.6	5.6	0	0.0	18.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	38	9.2	11.2	26	10.3	12.2	12	7.5	9.5
MALES	23	11.8	12.7	15	12.2	13.1	8	11.1	12.2
FEMALES	15	6.9	9.8	11	8.4	11.4	4	4.6	7.3
14. AGE									
00-04 YEARS	1	3.0	3.8	1	5.5	1.4	0	0.0	6.9
05-14 YEARS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
15-24 YEARS	1	1.4	1.1	0	0.0	0.0	1	3.0	2.4
25-34 YEARS	0	0.0	0.4	0	0.0	0.0	0	0.0	1.3
35-44 YEARS	2	5.0	3.9	2	7.4	4.9	0	0.0	1.7
45-54 YEARS	2	5.0	5.5	1	4.0	4.6	1	6.8	7.0
55-64 YEARS	2	4.1	10.0	2	6.1	12.1	0	0.0	5.8
65 AND OVER	30	47.6	51.3	20	46.6	50.9	10	49.8	52.4
15. PLACE OF DEATH									
HOSPITAL	28	73.7	72.6	18	69.2	70.0	10	83.3	78.1
OTHER INSTITUTION	3	7.9	11.2	1	3.8	12.7	2	16.7	8.2
HOME OR NON-INSTITUTION	7	18.4	16.1	7	26.9	17.3	0	0.0	13.7
16. OCCURRENCE									
TOTAL	9	0.0	0.0	8	0.0	0.0	1	0.0	0.0
TO RESIDENTS	9	100.0	81.5	8	100.0	79.5	1	100.0	86.7
OTHER EVENTS									
17. MARRIAGES	28	6.8	6.3						
18. DIVORCES AND ANNULMENTS	9	2.2	2.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

UNION COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	72070	1.2	1.2	59730	1.3	1.3	12340	0.8	0.9
MALES	35328	49.0	49.2	29417	49.2	49.3	5911	47.9	48.8
FEMALES	36742	51.0	50.8	30313	50.8	50.7	6429	52.1	51.2
2. NATURAL INCREASE	530	7.4	8.0	375	6.3	6.7	155	12.6	14.1
LIVE BIRTHS									
3. TOTAL	1028	14.3	15.1	770	12.9	13.5	258	20.9	22.3
MALES	518	7.2	7.6	393	6.6	6.9	125	10.1	11.1
FEMALES	510	7.1	7.4	377	6.3	6.5	133	10.8	11.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1024	99.6	99.6	768	99.7	99.7	256	99.2	99.5
PHYSICIAN NOT IN HOSPITAL	2	0.2	0.1	0	0.0	0.1	2	0.8	0.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	78	7.6	7.5	42	5.5	5.5	36	14.0	13.3
6. OUT OF WEDLOCK	189	18.4	16.1	33	4.3	3.8	156	60.5	52.2
7. OCCURRENCE									
TOTAL	727	0.9	0.9	469	0.8	0.8	258	1.0	1.0
TO RESIDENTS	588	80.9	82.8	368	78.5	80.4	220	85.3	86.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	28	26.8	21.6	18	23.0	18.3	10	38.0	31.3
9. FETAL DEATHS	18	17.2	10.9	13	16.6	10.7	5	19.0	11.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	18	100.0	100.0	13	100.0	100.0	5	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	6	33.3	25.0	2	15.4	4.9	4	80.0	80.0
10. NEONATAL (UNDER 28 DAYS)	10	9.7	10.8	5	6.5	7.7	5	19.4	20.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	2.9	3.8	2	2.6	3.5	1	4.0	4.7
12. INFANT DEATHS (UNDER 1 YEAR)	13	12.6	14.6	7	9.1	11.1	6	23.3	24.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	498	6.9	7.1	395	6.6	6.9	103	8.3	8.2
MALES	275	7.8	8.0	220	7.5	7.8	55	9.3	9.2
FEMALES	223	6.1	6.2	175	5.8	5.9	48	7.5	7.3
14. AGE									
00-04 YEARS	17	3.2	3.3	10	2.4	2.5	7	6.0	5.8
05-14 YEARS	9	0.7	0.6	6	0.6	0.4	3	1.0	1.0
15-24 YEARS	6	0.5	0.6	5	0.5	0.6	1	0.4	0.7
25-34 YEARS	14	1.2	1.3	12	1.2	1.1	2	1.1	2.1
35-44 YEARS	28	2.9	2.6	20	2.4	2.1	8	6.4	6.2
45-54 YEARS	52	7.5	6.6	40	6.6	5.5	12	14.1	13.9
55-64 YEARS	69	11.6	13.4	53	10.2	12.2	16	20.5	20.7
65 AND OVER	303	46.3	46.4	249	44.8	46.1	54	54.7	48.0
15. PLACE OF DEATH									
HOSPITAL	377	75.7	75.7	302	76.5	75.7	75	72.8	75.9
OTHER INSTITUTION	52	10.4	10.8	44	11.1	11.6	8	7.8	7.8
HOME OR NON-INSTITUTION	69	13.9	13.5	49	12.4	12.7	20	19.4	16.4
16. OCCURRENCE									
TOTAL	372	0.7	0.7	281	0.8	0.8	91	0.7	0.7
TO RESIDENTS	315	84.7	86.9	238	84.7	86.8	77	84.6	87.2
OTHER EVENTS									
17. MARRIAGES	360	5.0	5.1						
18. DIVORCES AND ANNULMENTS	210	2.9	2.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

VANCE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	36803	0.6	0.6	20684	0.5	0.5	16119	1.1	1.1
MALES	17545	47.7	47.3	9893	47.8	47.2	7652	47.5	47.4
FEMALES	19258	52.3	52.7	10791	52.2	52.8	8467	52.5	52.6
2. NATURAL INCREASE	136	3.7	4.9	7	0.3	1.5	129	8.0	9.7
LIVE BIRTHS									
3. TOTAL	540	14.7	15.7	234	11.3	12.2	306	19.0	20.6
MALES	275	7.5	8.3	122	5.9	6.7	153	9.5	10.5
FEMALES	265	7.2	7.4	112	5.4	5.5	153	9.5	10.1
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	538	99.6	97.8	234	100.0	99.8	304	99.3	96.2
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.4	0	0.0	0.0	1	0.3	0.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	1.7	0	0.0	0.2	0	0.0	2.9
5. PREMATURE BIRTHS	70	13.0	10.6	20	8.5	5.8	50	16.3	14.5
6. OUT OF WEDLOCK	181	33.5	28.2	14	6.0	5.8	167	54.6	46.5
7. OCCURRENCE									
TOTAL	626	0.7	0.8	362	0.6	0.6	264	1.0	1.0
TO RESIDENTS	374	59.7	60.9	188	51.9	57.3	186	70.5	65.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	15	27.6	28.0	3	12.8	15.8	12	38.8	38.0
9. FETAL DEATHS	4	7.4	13.5	1	4.3	9.5	3	9.7	16.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	97.4	1	100.0	100.0	3	100.0	96.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	2.6	0	0.0	0.0	0	0.0	3.8
OUT OF WEDLOCK	1	25.0	31.6	0	0.0	8.3	1	33.3	42.3
10. NEONATAL (UNDER 28 DAYS)	11	20.4	14.7	2	8.5	6.4	9	29.4	21.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	9.5	7.3	2	8.6	4.0	3	10.1	10.0
12. INFANT DEATHS (UNDER 1 YEAR)	16	29.6	21.9	4	17.1	10.3	12	39.2	31.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	404	11.0	10.8	227	11.0	10.7	177	11.0	10.9
MALES	230	13.1	13.1	135	13.6	13.1	95	12.4	13.2
FEMALES	174	9.0	8.7	92	8.5	8.6	82	9.7	8.7
14. AGE									
00-04 YEARS	18	6.8	5.1	5	3.9	2.5	13	9.4	7.7
05-14 YEARS	1	0.2	0.3	0	0.0	0.3	1	0.3	0.3
15-24 YEARS	13	2.1	1.3	8	2.6	1.5	5	1.6	1.1
25-34 YEARS	12	2.1	2.0	7	2.2	1.7	5	2.0	2.5
35-44 YEARS	20	4.9	4.3	12	4.6	2.9	8	5.3	6.9
45-54 YEARS	32	8.8	8.4	17	7.3	6.1	15	11.4	12.6
55-64 YEARS	59	15.9	20.1	34	14.2	18.1	25	19.0	23.8
65 AND OVER	249	56.1	55.9	144	51.0	54.3	105	65.3	58.7
15. PLACE OF DEATH									
HOSPITAL	287	71.0	68.4	146	64.3	63.0	141	79.7	75.7
OTHER INSTITUTION	67	16.6	20.0	50	22.0	23.6	17	9.6	15.2
HOME OR NON-INSTITUTION	50	12.4	11.6	31	13.7	13.4	19	10.7	9.0
16. OCCURRENCE									
TOTAL	375	0.8	0.8	200	0.5	0.6	175	1.4	1.3
TO RESIDENTS	294	78.4	78.8	164	82.0	80.6	130	74.3	76.4
OTHER EVENTS									
17. MARRIAGES	332	9.0	9.4						
18. DIVORCES AND ANNULMENTS	175	4.8	4.7						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WAKE COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	307705	5.2	5.1	236395	5.2	5.1	71310	4.9	4.9
MALES	150670	49.0	49.0	116563	49.3	49.2	34107	47.8	48.2
FEMALES	157035	51.0	51.0	119832	50.7	50.8	37203	52.2	51.8
2. NATURAL INCREASE	2068	6.7	6.9	1417	6.0	6.0	651	9.1	9.9
LIVE BIRTHS									
3. TOTAL	3968	12.9	13.4	2777	11.7	12.1	1191	16.7	17.7
MALES	2030	6.6	6.8	1422	6.0	6.2	608	8.5	8.9
FEMALES	1938	6.3	6.6	1355	5.7	5.9	583	8.2	8.8
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	3845	96.9	98.4	2669	96.1	98.1	1176	98.7	99.2
PHYSICIAN NOT IN HOSPITAL	7	0.2	0.2	3	0.1	0.2	4	0.3	0.2
#CERTIFIED NURSE MIDWIFE	111	2.8	1.1	103	3.7	1.4	8	0.7	0.4
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
5. PREMATURE BIRTHS	301	7.6	7.8	142	5.1	5.7	159	13.4	12.6
6. OUT OF WEDLOCK	699	17.6	16.6	132	4.8	4.3	567	47.6	44.4
7. OCCURRENCE									
TOTAL	4507	5.3	5.0	3235	5.6	5.3	1272	4.7	4.5
TO RESIDENTS	3777	83.8	86.3	2636	81.5	84.0	1141	89.7	92.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	73	18.2	20.0	38	13.6	16.0	35	29.0	29.1
9. FETAL DEATHS	32	8.0	9.7	16	5.7	7.8	16	13.3	13.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	32	100.0	98.9	16	100.0	99.1	16	100.0	98.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.1	0	0.0	0.9	0	0.0	1.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	6	18.8	22.9	2	12.5	5.7	4	25.0	44.6
10. NEONATAL (UNDER 28 DAYS)	41	10.3	10.4	22	7.9	8.2	19	16.0	15.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	22	5.6	4.4	11	4.0	2.9	11	9.4	7.7
12. INFANT DEATHS (UNDER 1 YEAR)	63	15.9	14.8	33	11.9	11.1	30	25.2	23.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1900	6.2	6.5	1360	5.8	6.0	540	7.6	7.9
MALES	1021	6.8	7.4	725	6.2	6.7	296	8.7	9.6
FEMALES	879	5.6	5.6	635	5.3	5.4	244	6.6	6.3
14. AGE									
00-04 YEARS	74	3.9	3.4	40	3.0	2.5	34	6.2	6.0
05-14 YEARS	10	0.2	0.3	7	0.2	0.3	3	0.2	0.4
15-24 YEARS	65	1.0	0.9	44	0.9	0.9	21	1.3	1.0
25-34 YEARS	57	0.9	1.1	27	0.6	0.9	30	2.1	2.1
35-44 YEARS	89	2.1	2.3	46	1.3	1.6	43	5.7	5.4
45-54 YEARS	159	5.3	5.9	104	4.2	5.0	55	10.3	9.7
55-64 YEARS	317	13.4	15.4	227	12.0	14.0	90	19.1	20.3
65 AND OVER	1129	48.9	50.6	865	48.6	51.4	264	49.9	48.4
15. PLACE OF DEATH									
HOSPITAL	1259	66.3	65.0	898	66.0	64.8	361	66.9	65.4
OTHER INSTITUTION	317	16.7	17.7	242	17.8	18.9	75	13.9	14.5
HOME OR NON-INSTITUTION	324	17.1	17.4	220	16.2	16.3	104	19.3	20.1
16. OCCURRENCE									
TOTAL	2146	4.3	4.2	1566	4.2	4.1	580	4.7	4.6
TO RESIDENTS	1700	79.2	80.4	1224	78.2	79.6	476	82.1	82.5
OTHER EVENTS									
17. MARRIAGES	2371	7.7	7.6						
18. DIVORCES AND ANNULMENTS	1821	5.9	5.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WARREN COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	16256	0.3	0.3	5865	0.1	0.1	10391	0.7	0.8
MALES	7778	47.8	47.5	2817	48.0	47.0	4961	47.7	47.8
FEMALES	8478	52.2	52.5	3048	52.0	53.0	5430	52.3	52.2
2. NATURAL INCREASE	9	0.6	3.5	-14	-2.4	-2.7	23	2.2	6.9
LIVE BIRTHS									
3. TOTAL	215	13.2	15.4	76	13.0	11.7	139	13.4	17.4
MALES	123	7.6	8.3	37	6.3	6.3	86	8.3	9.3
FEMALES	92	5.7	7.1	39	6.6	5.4	53	5.1	8.0
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	213	99.1	99.2	75	98.7	98.8	138	99.3	99.4
PHYSICIAN NOT IN HOSPITAL	1	0.5	0.7	1	1.3	1.2	0	0.0	0.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	25	11.6	9.5	4	5.3	2.6	21	15.1	12.0
6. OUT OF WEDLOCK	63	29.3	29.3	2	2.6	3.9	61	43.9	38.6
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0		100.0	0		100.0	0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	27.6	26.9	2	26.0	20.1	4	28.6	29.4
9. FETAL DEATHS	2	9.2	13.1	1	13.0	11.5	1	7.1	13.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	47.1	1	100.0	25.0	0	0.0	53.8
10. NEONATAL (UNDER 28 DAYS)	4	18.6	14.0	1	13.2	8.7	3	21.6	15.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.7	6.3	0	0.0	0.0	1	7.4	8.6
12. INFANT DEATHS (UNDER 1 YEAR)	5	23.3	20.2	1	13.2	8.7	4	28.8	24.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	206	12.7	11.8	90	15.3	14.4	116	11.2	10.5
MALES	114	14.7	14.3	48	17.0	16.3	66	13.3	13.2
FEMALES	92	10.9	9.6	42	13.8	12.7	50	9.2	7.9
14. AGE									
00-04 YEARS	6	5.1	5.4	1	3.2	2.2	5	5.8	6.4
05-14 YEARS	0	0.0	0.2	0	0.0	0.0	0	0.0	0.3
15-24 YEARS	5	1.8	1.3	2	2.6	0.5	3	1.5	1.6
25-34 YEARS	6	2.6	3.1	0	0.0	2.0	6	3.9	3.7
35-44 YEARS	5	3.2	5.6	1	1.6	3.0	4	4.3	7.4
45-54 YEARS	13	7.8	9.7	5	6.6	6.0	8	8.7	12.5
55-64 YEARS	40	21.6	16.7	14	16.3	15.4	26	26.2	17.9
65 AND OVER	131	54.0	50.5	67	57.6	53.6	64	50.6	47.7
15. PLACE OF DEATH									
HOSPITAL	143	69.4	66.0	61	67.8	67.9	82	70.7	64.6
OTHER INSTITUTION	27	13.1	14.4	14	15.6	15.1	13	11.2	13.9
HOME OR NON-INSTITUTION	36	17.5	19.6	15	16.7	17.0	21	18.1	21.5
16. OCCURRENCE									
TOTAL	116	0.2	0.2	52	0.1	0.1	64	0.5	0.5
TO RESIDENTS	103	88.8	86.3	46	88.5	88.0	57	89.1	85.1
OTHER EVENTS									
17. MARRIAGES	137	8.4	8.9						
18. DIVORCES AND ANNULMENTS	45	2.8	2.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WASHINGTON COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	14692	0.2	0.3	8233	0.2	0.2	6459	0.4	0.5
MALES	7135	48.6	49.1	3986	48.4	49.4	3149	48.8	48.7
FEMALES	7557	51.4	50.9	4247	51.6	50.6	3310	51.2	51.3
2. NATURAL INCREASE	109	7.4	7.2	30	3.6	3.1	79	12.2	13.0
LIVE BIRTHS									
3. TOTAL	230	15.7	15.9	99	12.0	12.0	131	20.3	21.5
MALES	116	7.9	8.0	43	5.2	5.7	73	11.3	11.2
FEMALES	114	7.8	8.0	56	6.8	6.3	58	9.0	10.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	229	99.6	99.2	99	100.0	99.4	130	99.2	99.1
PHYSICIAN NOT IN HOSPITAL	1	0.4	0.1	0	0.0	0.0	1	0.8	0.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.3	0	0.0	0.2	0	0.0	0.3
PERMITTED MIDWIFE	0	0.0	0.3	0	0.0	0.2	0	0.0	0.3
5. PREMATURE BIRTHS	18	7.8	7.5	2	2.0	3.3	16	12.2	10.9
6. OUT OF WEDLOCK	70	30.4	28.4	4	4.0	7.4	66	50.4	48.0
7. OCCURRENCE									
TOTAL	99	0.1	0.2	29	0.1	0.1	70	0.3	0.3
TO RESIDENTS	74	74.7	74.9	18	62.1	66.9	56	80.0	79.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	12.9	21.7	0	0.0	22.7	3	22.6	20.8
9. FETAL DEATHS	2	8.6	13.3	0	0.0	11.4	2	15.0	14.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	0		100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	18.8	0		0.0	1	50.0	30.0
10. NEONATAL (UNDER 28 DAYS)	1	4.3	8.4	0	0.0	11.5	1	7.6	6.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.4	3.4	0	0.0	0.0	1	7.7	6.1
12. INFANT DEATHS (UNDER 1 YEAR)	2	8.7	11.8	0	0.0	11.5	2	15.3	12.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	121	8.2	8.7	69	8.4	8.9	52	8.1	8.6
MALES	72	10.1	10.6	44	11.0	10.1	28	8.9	11.3
FEMALES	49	6.5	7.0	25	5.9	7.7	24	7.3	6.0
14. AGE									
00-04 YEARS	2	1.7	3.1	0	0.0	2.4	2	3.1	3.7
05-14 YEARS	1	0.4	0.2	0	0.0	0.0	1	0.7	0.4
15-24 YEARS	5	1.9	1.0	4	3.0	1.0	1	0.7	0.9
25-34 YEARS	7	3.0	1.8	3	2.3	1.0	4	3.8	3.4
35-44 YEARS	3	1.8	2.3	2	1.9	1.4	1	1.7	4.4
45-54 YEARS	8	5.8	9.0	3	3.3	7.5	5	10.4	11.5
55-64 YEARS	22	16.3	16.9	12	13.5	15.1	10	21.9	20.2
65 AND OVER	73	46.9	54.2	45	43.2	53.3	28	54.5	55.9
15. PLACE OF DEATH									
HOSPITAL	109	90.1	87.4	61	88.4	86.3	48	92.3	89.0
OTHER INSTITUTION	4	3.3	6.8	3	4.3	7.8	1	1.9	5.3
HOME OR NON-INSTITUTION	8	6.6	5.8	5	7.2	5.9	3	5.8	5.7
16. OCCURRENCE									
TOTAL	110	0.2	0.2	58	0.2	0.2	52	0.4	0.4
TO RESIDENTS	86	78.2	80.7	43	74.1	75.8	43	82.7	86.7
OTHER EVENTS									
17. MARRIAGES	102	6.9	7.0						
18. DIVORCES AND ANNULMENTS	32	2.2	2.6						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WATAUGA COUNTY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
1. TOTAL	32668	0.5	0.5	32014	0.7	0.7	654	0.0	0.0
MALES	15959	48.9	48.3	15620	48.8	48.3	339	51.8	50.8
FEMALES	16709	51.1	51.7	16394	51.2	51.7	315	48.2	49.2
2. NATURAL INCREASE	189	5.8	4.9	183	5.7	5.0	6	9.2	3.3
LIVE BIRTHS									
3. TOTAL	362	11.1	11.3	356	11.1	11.4	6	9.2	9.3
MALES	196	6.0	6.1	191	6.0	6.1	5	7.6	7.4
FEMALES	166	5.1	5.2	165	5.2	5.3	1	1.5	1.9
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	355	98.1	98.8	349	98.0	98.7	6	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	1	0.3	0.2	1	0.3	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	24	6.6	5.8	24	6.7	5.9	0	0.0	0.0
6. OUT OF WEDLOCK	24	6.6	7.0	22	6.2	6.7	2	33.3	35.0
7. OCCURRENCE									
TOTAL	653	0.8	0.7	645	1.1	1.1	8	0.0	0.0
TO RESIDENTS	345	52.8	52.6	339	52.6	52.5	6	75.0	70.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	16.4	17.5	6	16.7	17.7	0	0.0	0.0
9. FETAL DEATHS	3	8.2	11.1	3	8.4	11.2	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	94.7	3	100.0	94.7	0		
PHYSICIAN NOT IN HOSPITAL	0	0.0	5.3	0	0.0	5.3	0		
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
OUT OF WEDLOCK	2	66.7	31.6	2	66.7	31.6	0		
10. NEONATAL (UNDER 28 DAYS)	3	8.3	6.5	3	8.4	6.6	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	3.0	0	0.0	3.0	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	3	8.3	9.4	3	8.4	9.6	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	173	5.3	6.4	173	5.4	6.4	0	0.0	6.1
MALES	102	6.4	7.1	102	6.5	7.1	0	0.0	4.6
FEMALES	71	4.2	5.7	71	4.3	5.7	0	0.0	7.6
14. AGE									
00-04 YEARS	4	2.4	2.7	4	2.5	2.8	0	0.0	0.0
05-14 YEARS	1	0.3	0.1	1	0.3	0.1	0	0.0	0.0
15-24 YEARS	3	0.3	0.6	3	0.3	0.6	0	0.0	0.0
25-34 YEARS	4	0.8	0.9	4	0.8	0.9	0	0.0	0.0
35-44 YEARS	5	1.4	1.9	5	1.4	1.9	0	0.0	0.0
45-54 YEARS	10	3.8	5.8	10	3.8	5.7	0	0.0	14.0
55-64 YEARS	21	8.3	10.9	21	8.4	11.0	0	0.0	0.0
65 AND OVER	125	39.6	49.1	125	40.3	49.6	0	0.0	31.6
15. PLACE OF DEATH									
HOSPITAL	125	72.3	73.4	125	72.3	73.3	0		76.9
OTHER INSTITUTION	18	10.4	10.4	18	10.4	10.5	0		7.7
HOME OR NON-INSTITUTION	30	17.3	16.2	30	17.3	16.2	0		15.4
16. OCCURRENCE									
TOTAL	229	0.5	0.5	224	0.6	0.7	5	0.0	0.1
TO RESIDENTS	144	62.9	62.0	144	64.3	63.5	0	0.0	22.2
OTHER EVENTS									
17. MARRIAGES	288	8.8	9.8						
18. DIVORCES AND ANNULMENTS	120	3.7	3.9						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WAYNE COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	97449	1.6	1.7	64590	1.4	1.4	32859	2.3	2.4
MALES	47342	48.6	48.8	32073	49.7	49.8	15269	46.5	46.8
FEMALES	50107	51.4	51.2	32517	50.3	50.2	17590	53.5	53.2
2. NATURAL INCREASE	733	7.5	9.3	458	7.1	8.7	275	8.4	10.5
LIVE BIRTHS									
3. TOTAL	1597	16.4	17.7	995	15.4	16.8	602	18.3	19.4
MALES	790	8.1	9.1	477	7.4	8.6	313	9.5	10.0
FEMALES	807	8.3	8.6	518	8.0	8.2	289	8.8	9.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1567	98.1	97.6	982	98.7	98.0	585	97.2	97.1
PHYSICIAN NOT IN HOSPITAL	30	1.9	2.3	13	1.3	2.0	17	2.8	2.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	118	7.4	8.4	49	4.9	5.9	69	11.5	12.4
6. OUT OF WEDLOCK	299	18.7	18.8	55	5.5	4.6	244	40.5	41.8
7. OCCURRENCE									
TOTAL	1768	2.1	2.2	1137	2.0	2.1	631	2.3	2.4
TO RESIDENTS	1526	86.3	86.0	952	83.7	83.1	574	91.0	91.2
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	30	18.6	22.5	12	11.9	15.2	18	29.5	34.2
9. FETAL DEATHS	19	11.8	12.9	10	10.0	7.5	9	14.7	21.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	19	100.0	95.4	10	100.0	94.9	9	100.0	95.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	4.6	0	0.0	5.1	0	0.0	4.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	5	26.3	31.5	1	10.0	12.9	4	44.4	42.0
10. NEONATAL (UNDER 28 DAYS)	11	6.9	9.8	2	2.0	7.9	9	15.0	13.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	9	5.7	6.1	2	2.0	4.3	7	11.8	8.9
12. INFANT DEATHS (UNDER 1 YEAR)	20	12.5	15.8	4	4.0	12.0	16	26.6	22.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	864	8.9	8.4	537	8.3	8.1	327	10.0	8.9
MALES	474	10.0	9.6	283	8.8	9.0	191	12.5	10.7
FEMALES	390	7.8	7.2	254	7.8	7.1	136	7.7	7.4
14. AGE									
00-04 YEARS	24	3.1	4.2	8	1.7	3.3	16	5.3	5.5
05-14 YEARS	8	0.5	0.6	3	0.3	0.5	5	0.8	0.7
15-24 YEARS	25	1.3	1.2	15	1.2	1.2	10	1.5	1.3
25-34 YEARS	17	1.0	1.7	9	0.8	1.2	8	1.5	2.7
35-44 YEARS	35	3.0	3.1	18	2.2	2.3	17	5.1	5.0
45-54 YEARS	90	9.3	8.7	48	6.8	6.8	42	15.4	13.1
55-64 YEARS	147	17.7	18.5	82	14.2	16.2	65	26.0	23.5
65 AND OVER	518	60.1	57.0	354	61.3	59.8	164	57.6	51.8
15. PLACE OF DEATH									
HOSPITAL	502	58.1	58.1	321	59.8	59.7	181	55.4	55.5
OTHER INSTITUTION	192	22.2	21.9	121	22.5	22.1	71	21.7	21.6
HOME OR NON-INSTITUTION	170	19.7	20.0	95	17.7	18.3	75	22.9	22.9
16. OCCURRENCE									
TOTAL	828	1.7	1.6	521	1.4	1.4	307	2.5	2.3
TO RESIDENTS	730	88.2	83.4	453	86.9	81.4	277	90.2	86.9
OTHER EVENTS									
17. MARRIAGES	879	9.0	8.5						
18. DIVORCES AND ANNULMENTS	489	5.0	4.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WILKES COUNTY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	59193	1.0	1.0	56199	1.2	1.2	2994	0.2	0.2
MALES	29067	49.1	48.8	27609	49.1	48.9	1458	48.7	47.7
FEMALES	30126	50.9	51.2	28590	50.9	51.1	1536	51.3	52.3
2. NATURAL INCREASE	323	5.5	5.8	298	5.3	5.8	25	8.4	6.2
LIVE BIRTHS									
3. TOTAL	771	13.0	13.7	720	12.8	13.5	51	17.0	16.4
MALES	410	6.9	7.2	381	6.8	7.2	29	9.7	8.2
FEMALES	361	6.1	6.5	339	6.0	6.4	22	7.3	8.3
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	769	99.7	99.8	719	99.9	99.8	50	98.0	99.1
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.1	1	0.1	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.4
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	49	6.4	7.8	49	6.8	7.8	0	0.0	7.7
6. OUT OF WEDLOCK	78	10.1	8.2	60	8.3	6.4	18	35.3	37.0
7. OCCURRENCE									
TOTAL	617	0.7	0.8	575	1.0	1.1	42	0.2	0.2
TO RESIDENTS	583	94.5	94.6	543	94.4	94.6	40	95.2	94.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	9.0	18.8	7	9.7	19.5	0	0.0	8.4
9. FETAL DEATHS	4	5.2	10.7	4	5.5	10.8	0	0.0	8.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	4	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	9.5	0	0.0	7.5	0		50.0
10. NEONATAL (UNDER 28 DAYS)	3	3.9	8.2	3	4.2	8.8	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	5.2	4.7	3	4.2	4.4	1	19.6	8.5
12. INFANT DEATHS (UNDER 1 YEAR)	7	9.1	12.9	6	8.3	13.1	1	19.6	8.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	448	7.6	7.9	422	7.5	7.8	26	8.7	10.2
MALES	247	8.5	9.5	231	8.4	9.3	16	11.0	12.6
FEMALES	201	6.7	6.3	191	6.7	6.3	10	6.5	8.0
14. AGE									
00-04 YEARS	8	2.0	3.4	7	1.9	3.4	1	5.0	3.7
05-14 YEARS	1	0.1	0.3	1	0.1	0.4	0	0.0	0.0
15-24 YEARS	15	1.5	1.4	14	1.5	1.4	1	1.8	2.0
25-34 YEARS	15	1.5	1.3	14	1.5	1.2	1	2.1	2.8
35-44 YEARS	17	2.2	2.5	14	1.9	2.3	3	8.6	6.5
45-54 YEARS	38	6.1	6.1	37	6.2	6.2	1	3.7	5.1
55-64 YEARS	69	12.3	12.4	65	12.2	12.2	4	13.7	17.7
65 AND OVER	285	45.2	47.7	270	45.2	46.9	15	45.7	64.4
15. PLACE OF DEATH									
HOSPITAL	300	67.0	65.0	280	66.4	64.8	20	76.9	69.2
OTHER INSTITUTION	46	10.3	12.6	44	10.4	12.6	2	7.7	13.7
HOME OR NON-INSTITUTION	102	22.8	22.3	98	23.2	22.7	4	15.4	17.1
16. OCCURRENCE									
TOTAL	353	0.7	0.7	337	0.9	0.8	16	0.1	0.2
TO RESIDENTS	308	87.3	92.3	292	86.6	91.9	16	100.0	97.1
OTHER EVENTS									
17. MARRIAGES	530	9.0	8.7						
18. DIVORCES AND ANNULMENTS	260	4.4	4.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WILSON COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
1. TOTAL	63285	1.1	1.1	40013	0.9	0.9	23272	1.6	1.6
MALES	29825	47.1	47.4	19060	47.6	48.4	10765	46.3	45.7
FEMALES	33460	52.9	52.6	20953	52.4	51.6	12507	53.7	54.3
2. NATURAL INCREASE	391	6.2	5.9	138	3.4	3.1	253	10.9	10.9
LIVE BIRTHS									
3. TOTAL	985	15.6	15.5	517	12.9	12.4	468	20.1	21.1
MALES	521	8.2	8.1	277	6.9	6.7	244	10.5	10.7
FEMALES	464	7.3	7.4	240	6.0	5.7	224	9.6	10.4
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	841	85.4	93.5	495	95.7	97.9	346	73.9	88.8
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.3	0	0.0	0.2	1	0.2	0.4
#CERTIFIED NURSE MIDWIFE	143	14.5	5.3	22	4.3	1.7	121	25.9	9.1
PERMITTED MIDWIFE	0	0.0	1.0	0	0.0	0.3	0	0.0	1.7
5. PREMATURE BIRTHS	81	8.2	9.3	29	5.6	5.4	52	11.1	13.4
6. OUT OF WEDLOCK	269	27.3	26.5	25	4.8	4.3	244	52.1	49.9
7. OCCURRENCE									
TOTAL	1205	1.4	1.4	663	1.2	1.1	542	2.0	2.0
TO RESIDENTS	922	76.5	76.5	480	72.4	71.9	442	81.5	81.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	16	16.1	24.7	6	11.6	16.9	10	21.1	32.8
9. FETAL DEATHS	6	6.1	11.5	1	1.9	7.3	5	10.6	16.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	6	100.0	98.2	1	100.0	100.0	5	100.0	97.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	4	66.7	37.5	0	0.0	0.0	4	80.0	55.3
10. NEONATAL (UNDER 28 DAYS)	10	10.2	13.3	5	9.7	9.7	5	10.7	17.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	5.1	5.9	2	3.9	2.9	3	6.5	9.1
12. INFANT DEATHS (UNDER 1 YEAR)	15	15.2	19.1	7	13.5	12.6	8	17.1	26.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	594	9.4	9.6	379	9.5	9.2	215	9.2	10.2
MALES	345	11.6	11.5	220	11.5	10.7	125	11.6	13.0
FEMALES	249	7.4	7.8	159	7.6	7.8	90	7.2	7.8
14. AGE									
00-04 YEARS	17	3.8	4.7	7	2.9	3.0	10	4.7	6.5
05-14 YEARS	2	0.2	0.3	1	0.2	0.4	1	0.2	0.3
15-24 YEARS	17	1.4	1.3	13	1.8	1.2	4	0.8	1.3
25-34 YEARS	21	2.0	2.0	9	1.4	1.3	12	3.3	3.3
35-44 YEARS	16	2.2	3.7	3	0.6	2.3	13	6.0	7.5
45-54 YEARS	60	9.4	8.9	37	8.1	6.3	23	12.3	15.2
55-64 YEARS	116	19.0	19.1	77	18.1	16.1	39	21.1	26.0
65 AND OVER	345	51.8	53.6	232	51.5	54.3	113	52.4	52.1
15. PLACE OF DEATH									
HOSPITAL	498	83.8	81.6	312	82.3	81.7	186	86.5	81.5
OTHER INSTITUTION	69	11.6	12.4	45	11.9	12.2	24	11.2	12.6
HOME OR NON-INSTITUTION	27	4.5	6.0	22	5.8	6.1	5	2.3	5.9
16. OCCURRENCE									
TOTAL	710	1.4	1.6	473	1.3	1.4	237	1.9	2.2
TO RESIDENTS	512	72.1	67.7	328	69.3	64.7	184	77.6	73.4
OTHER EVENTS									
17. MARRIAGES	571	9.0	9.1						
18. DIVORCES AND ANNULMENTS	298	4.7	4.4						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

YADKIN COUNTY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	29020	0.5	0.5	27520	0.6	0.6	1500	0.1	0.1
MALES	14242	49.1	47.9	13474	49.0	47.7	768	51.2	51.0
FEMALES	14778	50.9	52.1	14046	51.0	52.3	732	48.8	49.0
2. NATURAL INCREASE	89	3.1	2.8	85	3.1	2.8	4	2.7	3.2
LIVE BIRTHS									
3. TOTAL	316	10.9	11.1	300	10.9	11.0	16	10.7	13.2
MALES	153	5.3	5.7	144	5.2	5.7	9	6.0	6.6
FEMALES	163	5.6	5.4	156	5.7	5.4	7	4.7	6.6
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	316	100.0	99.8	300	100.0	99.8	16	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	24	7.6	7.1	20	6.7	7.1	4	25.0	7.0
6. OUT OF WEDLOCK	25	7.9	7.8	15	5.0	6.1	10	62.5	36.0
7. OCCURRENCE									
TOTAL	105	0.1	0.1	93	0.2	0.2	12	0.0	0.0
TO RESIDENTS	93	88.6	82.6	82	88.2	81.9	11	91.7	88.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	18.7	23.0	6	19.7	22.3	0	0.0	34.1
9. FETAL DEATHS	5	15.6	12.8	5	16.4	12.2	0	0.0	22.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	80.0	95.0	4	80.0	94.4	0		100.0
PHYSICIAN NOT IN HOSPITAL	1	20.0	5.0	1	20.0	5.6	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	1	20.0	10.0	1	20.0	5.6	0		50.0
10. NEONATAL (UNDER 28 DAYS)	1	3.2	10.3	1	3.3	10.3	0	0.0	11.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	1.3	0	0.0	1.4	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	1	3.2	11.6	1	3.3	11.6	0	0.0	11.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	227	7.8	8.4	215	7.8	8.3	12	8.0	10.0
MALES	134	9.4	10.5	127	9.4	10.5	7	9.1	11.8
FEMALES	93	6.3	6.3	88	6.3	6.3	5	6.8	8.2
14. AGE									
00-04 YEARS	1	0.6	2.3	1	0.6	2.3	0	0.0	1.9
05-14 YEARS	1	0.2	0.3	1	0.3	0.4	0	0.0	0.0
15-24 YEARS	7	1.5	1.5	7	1.6	1.5	0	0.0	2.3
25-34 YEARS	3	0.7	1.1	2	0.5	1.0	1	3.8	3.1
35-44 YEARS	3	0.8	1.8	3	0.8	1.6	0	0.0	4.4
45-54 YEARS	17	5.1	6.4	14	4.4	5.9	3	22.9	18.7
55-64 YEARS	31	10.2	11.4	29	9.9	11.2	2	17.1	17.6
65 AND OVER	164	44.3	44.2	158	44.6	43.7	6	36.8	57.7
15. PLACE OF DEATH									
HOSPITAL	161	70.9	71.2	153	71.2	71.9	8	66.7	58.5
OTHER INSTITUTION	23	10.1	11.6	21	9.8	11.4	2	16.7	15.4
HOME OR NON-INSTITUTION	43	18.9	17.2	41	19.1	16.6	2	16.7	26.2
16. OCCURRENCE									
TOTAL	125	0.3	0.3	122	0.3	0.3	3	0.0	0.1
TO RESIDENTS	105	84.0	81.3	102	83.6	81.4	3	100.0	80.0
OTHER EVENTS									
17. MARRIAGES	270	9.3	8.7						
18. DIVORCES AND ANNULMENTS	120	4.1	3.8						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

YANCEY COUNTY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
1. TOTAL	15010	0.3	0.3	14770	0.3	0.3	240	0.0	0.0
MALES	7337	48.9	48.9	7187	48.7	48.3	150	62.5	77.5
FEMALES	7673	51.1	51.1	7583	51.3	51.7	90	37.5	22.5
2. NATURAL INCREASE	27	1.8	3.3	28	1.9	3.3	-1	-4.2	5.8
LIVE BIRTHS									
3. TOTAL	167	11.1	12.1	167	11.3	12.2	0	0.0	8.3
MALES	93	6.2	6.4	93	6.3	6.4	0	0.0	5.1
FEMALES	74	4.9	5.7	74	5.0	5.8	0	0.0	3.2
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	163	97.6	97.3	163	97.6	97.3	0		100.0
PHYSICIAN NOT IN HOSPITAL	2	1.2	1.9	2	1.2	1.9	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.4	0	0.0	0.5	0		0.0
5. PREMATURE BIRTHS	12	7.2	7.8	12	7.2	7.5	0		23.1
6. OUT OF WEDLOCK	6	3.6	5.6	6	3.6	5.5	0		15.4
7. OCCURRENCE									
TOTAL	4	0.0	0.0	4	0.0	0.0	0	0.0	0.0
TO RESIDENTS	4	100.0	78.1	4	100.0	78.1	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	41.2	21.1	7	41.2	21.4	0		0.0
9. FETAL DEATHS	3	17.6	12.2	3	17.6	12.4	0		0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	100.0	3	100.0	100.0	0		
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
OUT OF WEDLOCK	1	33.3	9.1	1	33.3	9.1	0		
10. NEONATAL (UNDER 28 DAYS)	4	24.0	9.0	4	24.0	9.1	0		0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	0.0	0	0.0	0.0	0		0.0
12. INFANT DEATHS (UNDER 1 YEAR)	4	24.0	9.0	4	24.0	9.1	0		0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	140	9.3	8.8	139	9.4	8.9	1	4.2	2.6
MALES	84	11.4	11.0	83	11.5	11.4	1	6.7	1.7
FEMALES	56	7.3	6.6	56	7.4	6.6	0	0.0	5.7
14. AGE									
00-04 YEARS	4	4.2	2.1	4	4.2	2.1	0	0.0	0.0
05-14 YEARS	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
15-24 YEARS	1	0.4	1.4	1	0.4	1.4	0	0.0	0.0
25-34 YEARS	2	0.9	1.1	2	0.9	1.1	0	0.0	0.0
35-44 YEARS	5	2.7	3.1	5	2.8	3.2	0	0.0	0.0
45-54 YEARS	6	3.8	4.8	5	3.2	4.5	1	38.5	31.9
55-64 YEARS	18	11.5	10.4	18	11.6	10.5	0	0.0	0.0
65 AND OVER	104	48.3	44.9	104	48.8	45.2	0	0.0	9.4
15. PLACE OF DEATH									
HOSPITAL	88	62.9	59.2	88	63.3	59.1	0	0.0	75.0
OTHER INSTITUTION	25	17.9	20.2	25	18.0	20.3	0	0.0	0.0
HOME OR NON-INSTITUTION	27	19.3	20.6	26	18.7	20.6	1	100.0	25.0
16. OCCURRENCE									
TOTAL	66	0.1	0.1	65	0.2	0.2	1	0.0	0.0
TO RESIDENTS	62	93.9	86.0	61	93.8	85.9	1	100.0	100.0
OTHER EVENTS									
17. MARRIAGES	227	15.1	16.7						
18. DIVORCES AND ANNULMENTS	60	4.0	4.2						

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

CITY TABLES

SELECTED VITAL STATISTICS FOR 1977-1981

ALBEMARLE

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	29			0			29		
LIVE BIRTHS									
3. TOTAL	169			116			53		
MALES	102			70			32		
FEMALES	67			46			21		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	168	99.4	99.7	115	99.1	99.6	53	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	14	8.3	6.5	8	6.9	3.7	6	11.3	13.2
6. OUT OF WEDLOCK	38	22.5	19.5	7	6.0	4.7	31	58.5	56.1
7. OCCURRENCE									
TOTAL	456	0.5	0.6	329	0.6	0.7	127	0.5	0.4
TO RESIDENTS	136	29.8	22.6	87	26.4	19.8	49	38.6	32.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	5.9	20.8	0	0.0	15.7	1	18.9	33.5
9. FETAL DEATHS	0	0.0	9.7	0	0.0	5.9	0	0.0	19.1
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		100.0	0		100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0		0.0	0		0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		0.0
PERMITTED MIDWIFE	0		0.0	0		0.0	0		0.0
OUT OF WEDLOCK	0		28.6	0		0.0	0		50.0
10. NEONATAL (UNDER 28 DAYS)	1	5.9	11.2	0	0.0	9.8	1	18.9	14.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	5.7	0	0.0	4.0	0	0.0	9.9
12. INFANT DEATHS (UNDER 1 YEAR)	1	5.9	16.8	0	0.0	13.8	1	18.9	24.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	140			116			24		
MALES	65			55			10		
FEMALES	75			61			14		
14. AGE									
00-04 YEARS	1			0			1		
05-14 YEARS	0			0			0		
15-24 YEARS	1			1			0		
25-34 YEARS	3			2			1		
35-44 YEARS	5			4			1		
45-54 YEARS	14			11			3		
55-64 YEARS	14			11			3		
65 AND OVER	102			87			15		
15. PLACE OF DEATH									
HOSPITAL	98	70.0	73.0	86	74.1	74.7	12	50.0	64.8
OTHER INSTITUTION	22	15.7	13.3	14	12.1	12.5	8	33.3	16.8
HOME OR NON-INSTITUTION	20	14.3	13.7	16	13.8	12.7	4	16.7	18.4
16. OCCURRENCE									
TOTAL	244	0.5	0.5	214	0.6	0.6	30	0.2	0.3
TO RESIDENTS	100	41.0	38.1	87	40.7	37.0	13	43.3	44.3

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ASHEBORO

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	46			32			14		
LIVE BIRTHS									
3. TOTAL	205			169			36		
MALES	102			82			20		
FEMALES	103			87			16		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	199	97.1	98.3	164	97.0	98.3	35	97.2	97.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	4	2.0	0.5	4	2.4	0.6	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.3	0	0.0	0.0
5. PREMATURE BIRTHS	17	8.3	6.5	11	6.5	5.9	6	16.7	10.1
6. OUT OF WEDLOCK	29	14.1	14.3	12	7.1	8.4	17	47.2	47.5
7. OCCURRENCE									
TOTAL	484	0.6	0.6	414	0.7	0.8	70	0.3	0.2
TO RESIDENTS	121	25.0	21.7	91	22.0	19.9	30	42.9	33.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	14.5	16.2	1	5.9	12.8	2	52.6	35.0
9. FETAL DEATHS	2	9.7	9.7	0	0.0	6.4	2	52.6	28.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	0		100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	44.4	0		20.0	1	50.0	75.0
10. NEONATAL (UNDER 28 DAYS)	1	4.9	6.5	1	5.9	6.4	0	0.0	7.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	2.2	0	0.0	2.6	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	1	4.9	8.7	1	5.9	9.0	0	0.0	7.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	159			137			22		
MALES	88			75			13		
FEMALES	71			62			9		
14. AGE									
00-04 YEARS	1			1			0		
05-14 YEARS	2			1			1		
15-24 YEARS	2			2			0		
25-34 YEARS	4			3			1		
35-44 YEARS	4			3			1		
45-54 YEARS	18			16			2		
55-64 YEARS	29			25			4		
65 AND OVER	99			86			13		
15. PLACE OF DEATH									
HOSPITAL	95	59.7	60.1	83	60.6	60.7	12	54.5	56.1
OTHER INSTITUTION	33	20.8	24.3	26	19.0	24.7	7	31.8	21.5
HOME OR NON-INSTITUTION	31	19.5	15.7	28	20.4	14.6	3	13.6	22.4
16. OCCURRENCE									
TOTAL	311	0.6	0.6	274	0.7	0.8	37	0.3	0.3
TO RESIDENTS	122	39.2	37.5	104	38.0	36.0	18	48.6	50.0

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ASHEVILLE

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	-104			-142			38		
LIVE BIRTHS									
3. TOTAL	711			513			198		
MALES	364			268			96		
FEMALES	347			245			102		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	699	98.3	98.8	501	97.7	98.6	198	100.0	99.4
PHYSICIAN NOT IN HOSPITAL	9	1.3	0.8	9	1.8	0.9	0	0.0	0.6
#CERTIFIED NURSE MIDWIFE	1	0.1	0.0	1	0.2	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	68	9.6	9.8	37	7.2	7.6	31	15.7	15.0
6. OUT OF WEDLOCK	174	24.5	24.7	63	12.3	12.0	111	56.1	53.9
7. OCCURRENCE									
TOTAL	2560	3.0	3.0	2309	4.0	4.0	251	0.9	1.0
TO RESIDENTS	682	26.6	28.1	488	21.1	21.9	194	77.3	78.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	16	22.2	22.3	10	19.3	18.1	6	29.7	31.8
9. FETAL DEATHS	9	12.5	8.3	5	9.7	7.3	4	19.8	10.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	88.9	93.5	5	100.0	100.0	3	75.0	83.3
PHYSICIAN NOT IN HOSPITAL	1	11.1	6.5	0	0.0	0.0	1	25.0	16.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	5	55.6	35.5	3	60.0	26.3	2	50.0	50.0
10. NEONATAL (UNDER 28 DAYS)	7	9.8	14.1	5	9.7	10.9	2	10.1	21.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	2.8	3.6	1	2.0	2.7	1	5.1	5.5
12. INFANT DEATHS (UNDER 1 YEAR)	9	12.7	17.6	6	11.7	13.6	3	15.2	26.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	815			655			160		
MALES	415			333			82		
FEMALES	400			322			78		
14. AGE									
00-04 YEARS	11			8			3		
05-14 YEARS	2			2			0		
15-24 YEARS	11			8			3		
25-34 YEARS	16			8			8		
35-44 YEARS	14			10			4		
45-54 YEARS	53			38			15		
55-64 YEARS	141			111			30		
65 AND OVER	567			470			97		
15. PLACE OF DEATH									
HOSPITAL	446	54.7	54.8	352	53.7	54.7	94	58.7	55.3
OTHER INSTITUTION	233	28.6	30.5	199	30.4	31.0	34	21.2	28.5
HOME OR NON-INSTITUTION	136	16.7	14.7	104	15.9	14.3	32	20.0	16.1
16. OCCURRENCE									
TOTAL	1447	2.9	2.7	1270	3.4	3.2	177	1.4	1.2
TO RESIDENTS	633	43.7	44.2	490	38.6	39.3	143	80.8	82.9

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BOONE

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	30			26			4		
LIVE BIRTHS									
3. TOTAL	55			51			4		
MALES	25			22			3		
FEMALES	30			29			1		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	54	98.2	98.4	50	98.0	98.3	4	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.4	0	0.0	0.4	0	0.0	0.0
5. PREMATURE BIRTHS	5	9.1	5.6	5	9.8	5.8	0	0.0	0.0
6. OUT OF WEDLOCK	5	9.1	10.0	4	7.8	9.5	1	25.0	22.2
7. OCCURRENCE									
TOTAL	643	0.8	0.7	635	1.1	1.0	8	0.0	0.0
TO RESIDENTS	52	8.1	7.8	48	7.6	7.6	4	50.0	37.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	17.9	23.5	1	19.2	24.4	0	0.0	0.0
9. FETAL DEATHS	1	17.9	15.7	1	19.2	16.3	0	0.0	0.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	1	100.0	100.0	0		
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		
OUT OF WEDLOCK	1	100.0	75.0	1	100.0	75.0	0		
10. NEONATAL (UNDER 28 DAYS)	0	0.0	8.0	0	0.0	8.3	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	4.0	0	0.0	4.2	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	0	0.0	12.0	0	0.0	12.4	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	25			25			0		
MALES	15			15			0		
FEMALES	10			10			0		
14. AGE									
00-04 YEARS	0			0			0		
05-14 YEARS	0			0			0		
15-24 YEARS	0			0			0		
25-34 YEARS	0			0			0		
35-44 YEARS	0			0			0		
45-54 YEARS	0			0			0		
55-64 YEARS	4			4			0		
65 AND OVER	21			21			0		
15. PLACE OF DEATH									
HOSPITAL	20	80.0	79.3	20	80.0	79.3	0		80.0
OTHER INSTITUTION	2	8.0	8.0	2	8.0	8.5	0		0.0
HOME OR NON-INSTITUTION	3	12.0	12.6	3	12.0	12.2	0		20.0
16. OCCURRENCE									
TOTAL	128	0.3	0.3	126	0.3	0.4	2	0.0	0.0
TO RESIDENTS	19	14.8	19.1	19	15.1	18.6	0	0.0	36.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

BURLINGTON

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	17			-30			47		
LIVE BIRTHS									
3. TOTAL	409			297			112		
MALES	215			155			60		
FEMALES	194			142			52		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	403	98.5	99.6	291	98.0	99.4	112	100.0	99.8
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.1	1	0.3	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	5	1.2	0.2	5	1.7	0.3	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	46	11.2	9.1	29	9.8	7.0	17	15.2	13.8
6. OUT OF WEDLOCK	82	20.0	20.8	19	6.4	6.9	63	56.3	50.7
7. OCCURRENCE									
TOTAL	979	1.2	1.2	794	1.4	1.4	185	0.7	0.7
TO RESIDENTS	335	34.2	32.9	252	31.7	29.5	83	44.9	47.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	11	26.6	23.7	7	23.3	20.8	4	35.4	29.8
9. FETAL DEATHS	4	9.7	10.9	3	10.0	9.0	1	8.8	14.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	95.7	3	100.0	100.0	1	100.0	90.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	4.3	0	0.0	0.0	0	0.0	10.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	26.1	0	0.0	0.0	0	0.0	60.0
10. NEONATAL (UNDER 28 DAYS)	7	17.1	12.9	4	13.5	11.9	3	26.8	15.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	7.5	3.4	2	6.8	2.1	1	9.2	6.1
12. INFANT DEATHS (UNDER 1 YEAR)	10	24.4	16.3	6	20.2	14.0	4	35.7	21.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	392			327			65		
MALES	224			181			43		
FEMALES	168			146			22		
14. AGE									
00-04 YEARS	11			6			5		
05-14 YEARS	1			1			0		
15-24 YEARS	11			7			4		
25-34 YEARS	7			4			3		
35-44 YEARS	10			6			4		
45-54 YEARS	37			32			5		
55-64 YEARS	77			62			15		
65 AND OVER	238			209			29		
15. PLACE OF DEATH									
HOSPITAL	256	65.3	66.2	216	66.1	67.8	40	61.5	58.0
OTHER INSTITUTION	38	9.7	10.8	27	8.3	10.0	11	16.9	15.0
HOME OR NON-INSTITUTION	98	25.0	23.0	84	25.7	22.1	14	21.5	27.1
16. OCCURRENCE									
TOTAL	624	1.3	1.1	520	1.4	1.3	104	0.8	0.7
TO RESIDENTS	297	47.6	50.2	250	48.1	49.7	47	45.2	52.9

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CARY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
	POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)								
2. NATURAL INCREASE	303			272			31		
LIVE BIRTHS									
3. TOTAL	375			342			33		
MALES	173			149			24		
FEMALES	202			193			9		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	366	97.6	98.0	333	97.4	98.0	33	100.0	99.0
PHYSICIAN NOT IN HOSPITAL	1	0.3	0.2	1	0.3	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	8	2.1	1.6	8	2.3	1.6	0	0.0	1.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	28	7.5	5.5	22	6.4	5.4	6	18.2	7.1
6. OUT OF WEDLOCK	17	4.5	3.3	10	2.9	2.1	7	21.2	20.2
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0		100.0	0		100.0	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	2	5.3	14.4	2	5.8	14.7	0	0.0	10.0
9. FETAL DEATHS	2	5.3	7.8	2	5.8	7.7	0	0.0	10.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	2	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	8.3	0	0.0	0.0	0		100.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	6.6	0	0.0	7.0	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.7	2.0	1	2.9	2.1	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	1	2.7	8.5	1	2.9	9.1	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	72			70			2		
MALES	38			37			1		
FEMALES	34			33			1		
14. AGE									
00-04 YEARS	2			2			0		
05-14 YEARS	1			1			0		
15-24 YEARS	4			4			0		
25-34 YEARS	1			1			0		
35-44 YEARS	5			5			0		
45-54 YEARS	4			3			1		
55-64 YEARS	16			16			0		
65 AND OVER	39			38			1		
15. PLACE OF DEATH									
HOSPITAL	50	69.4	69.5	49	70.0	70.3	1	50.0	59.1
OTHER INSTITUTION	12	16.7	13.7	12	17.1	14.4	0	0.0	4.5
HOME OR NON-INSTITUTION	10	13.9	16.8	9	12.9	15.4	1	50.0	36.4
16. OCCURRENCE									
TOTAL	16	0.0	0.0	15	0.0	0.0	1	0.0	0.0
TO RESIDENTS	11	68.8	62.1	10	66.7	80.7	1	100.0	90.0

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CHAPEL HILL

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
	POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)								
2. NATURAL INCREASE	128			100			28		
LIVE BIRTHS									
3. TOTAL	297			215			82		
MALES	160			114			46		
FEMALES	137			101			36		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	289	97.3	98.2	207	96.3	97.6	82	100.0	99.4
PHYSICIAN NOT IN HOSPITAL	1	0.3	0.2	1	0.5	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	3	1.0	0.9	3	1.4	1.1	0	0.0	0.3
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	20	6.7	7.1	8	3.7	4.5	12	14.6	13.8
6. OUT OF WEDLOCK	39	13.1	14.3	8	3.7	2.8	31	37.8	43.2
7. OCCURRENCE									
TOTAL	1387	1.6	1.7	662	1.2	1.2	725	2.7	2.7
TO RESIDENTS	159	11.5	9.8	100	15.1	12.0	59	8.1	7.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	13	42.8	29.2	4	18.3	18.8	9	104.7	55.1
9. FETAL DEATHS	7	23.0	15.0	3	13.8	11.1	4	46.5	24.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	7	100.0	100.0	3	100.0	100.0	4	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	28.6	21.1	0	0.0	0.0	2	50.0	44.4
10. NEONATAL (UNDER 28 DAYS)	6	20.2	14.4	1	4.7	7.8	5	61.0	31.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	2.4	0	0.0	0.0	0	0.0	8.7
12. INFANT DEATHS (UNDER 1 YEAR)	6	20.2	16.9	1	4.7	7.8	5	61.0	39.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	169			115			54		
MALES	92			60			32		
FEMALES	77			55			22		
14. AGE									
00-04 YEARS	6			1			5		
05-14 YEARS	1			1			0		
15-24 YEARS	5			4			1		
25-34 YEARS	4			2			2		
35-44 YEARS	4			1			3		
45-54 YEARS	9			6			3		
55-64 YEARS	24			14			10		
65 AND OVER	116			86			30		
15. PLACE OF DEATH									
HOSPITAL	90	53.3	54.7	58	50.4	52.2	32	59.3	61.1
OTHER INSTITUTION	38	22.5	23.8	31	27.0	26.2	7	13.0	17.6
HOME OR NON-INSTITUTION	41	24.3	21.5	26	22.6	21.6	15	27.8	21.2
16. OCCURRENCE									
TOTAL	769	1.5	1.7	458	1.2	1.4	311	2.5	2.7
TO RESIDENTS	125	16.3	12.4	83	18.1	14.6	42	13.5	9.2

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CHARLOTTE

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)									
2. NATURAL INCREASE	2348			1009			1339		
LIVE BIRTHS									
3. TOTAL	4811			2641			2170		
MALES	2434			1331			1103		
FEMALES	2377			1310			1067		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	4789	99.5	99.6	2625	99.4	99.5	2164	99.7	99.7
PHYSICIAN NOT IN HOSPITAL	6	0.1	0.2	2	0.1	0.1	4	0.2	0.3
#CERTIFIED NURSE MIDWIFE	2	0.0	0.0	2	0.1	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	434	9.0	9.2	151	5.7	5.8	283	13.0	13.3
6. OUT OF WEDLOCK	1312	27.3	27.2	167	6.3	6.4	1145	52.8	52.8
7. OCCURRENCE									
TOTAL	7874	9.3	8.7	5291	9.2	8.6	2583	9.5	8.8
TO RESIDENTS	4757	60.4	61.7	2610	49.3	50.4	2147	83.1	85.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	110	22.6	24.5	40	15.0	16.9	70	31.6	33.7
9. FETAL DEATHS	63	12.9	10.9	21	7.9	7.7	42	19.0	14.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	63	100.0	98.4	21	100.0	99.0	42	100.0	98.1
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.6	0	0.0	1.0	0	0.0	1.9
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	25	39.7	42.7	1	4.8	10.2	24	57.1	63.2
10. NEONATAL (UNDER 28 DAYS)	47	9.8	13.7	19	7.2	9.3	28	12.9	19.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	24	5.0	4.0	13	5.0	2.8	11	5.1	5.6
12. INFANT DEATHS (UNDER 1 YEAR)	71	14.8	17.7	32	12.1	12.1	39	18.0	24.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	2463			1632			831		
MALES	1289			820			469		
FEMALES	1174			812			362		
14. AGE									
00-04 YEARS	82			37			45		
05-14 YEARS	13			8			5		
15-24 YEARS	50			33			17		
25-34 YEARS	82			30			52		
35-44 YEARS	107			44			63		
45-54 YEARS	229			118			111		
55-64 YEARS	461			286			175		
65 AND OVER	1439			1076			363		
15. PLACE OF DEATH									
HOSPITAL	1647	66.9	69.7	1062	65.1	67.0	585	70.4	74.9
OTHER INSTITUTION	406	16.5	15.4	303	18.6	18.1	103	12.4	10.4
HOME OR NON-INSTITUTION	410	16.6	14.8	267	16.4	14.9	143	17.2	14.7
16. OCCURRENCE									
TOTAL	3389	6.8	6.7	2463	6.6	6.5	926	7.5	7.5
TO RESIDENTS	2201	64.9	63.5	1455	59.1	57.3	746	80.6	79.6

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

CONCORD

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	-45			-71			26		
LIVE BIRTHS									
3. TOTAL	193			123			70		
MALES	95			58			37		
FEMALES	98			65			33		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	193	100.0	99.9	123	100.0	99.9	70	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	25	13.0	7.0	13	10.6	4.7	12	17.1	11.5
6. OUT OF WEDLOCK	47	24.4	24.7	6	4.9	6.9	41	58.6	58.7
7. OCCURRENCE									
TOTAL	1255	1.5	1.5	1019	1.8	1.8	236	0.9	0.9
TO RESIDENTS	172	13.7	14.8	105	10.3	11.6	67	28.4	28.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	9	45.5	25.6	3	24.2	17.5	6	81.1	40.9
9. FETAL DEATHS	5	25.3	14.2	1	8.1	5.8	4	54.1	30.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	100.0	100.0	1	100.0	100.0	4	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	40.0	40.0	0	0.0	25.0	2	50.0	45.5
10. NEONATAL (UNDER 28 DAYS)	4	20.7	11.6	2	16.3	11.7	2	28.6	11.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	5.3	2.9	0	0.0	1.5	1	14.7	5.7
12. INFANT DEATHS (UNDER 1 YEAR)	5	25.9	14.5	2	16.3	13.2	3	42.9	16.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	238			194			44		
MALES	124			100			24		
FEMALES	114			94			20		
14. AGE									
00-04 YEARS	6			2			4		
05-14 YEARS	0			0			0		
15-24 YEARS	4			3			1		
25-34 YEARS	5			3			2		
35-44 YEARS	7			5			2		
45-54 YEARS	15			10			5		
55-64 YEARS	36			31			5		
65 AND OVER	165			140			25		
15. PLACE OF DEATH									
HOSPITAL	200	84.0	79.3	162	83.5	79.2	38	86.4	79.7
OTHER INSTITUTION	29	12.2	13.3	23	11.9	13.8	6	13.6	11.4
HOME OR NON-INSTITUTION	9	3.8	7.4	9	4.6	7.0	0	0.0	8.9
16. OCCURRENCE									
TOTAL	818	1.6	1.5	710	1.9	1.8	108	0.9	0.9
TO RESIDENTS	198	24.2	25.2	162	22.8	23.2	36	33.3	36.5

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

DURHAM

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	393			-88			481		
LIVE BIRTHS									
3. TOTAL	1425			515			910		
MALES	712			267			445		
FEMALES	713			248			465		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1413	99.2	99.1	507	98.4	98.2	906	99.6	99.6
PHYSICIAN NOT IN HOSPITAL	3	0.2	0.2	2	0.4	0.2	1	0.1	0.2
#CERTIFIED NURSE MIDWIFE	5	0.4	0.4	3	0.6	0.8	2	0.2	0.2
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	143	10.0	10.1	25	4.9	5.4	118	13.0	13.0
6. OUT OF WEDLOCK	519	36.4	34.3	31	6.0	5.8	488	53.6	51.7
7. OCCURRENCE									
TOTAL	3547	4.2	4.1	1948	3.4	3.3	1599	5.9	6.0
TO RESIDENTS	1381	38.9	39.5	494	25.4	27.7	887	55.5	53.2
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	31	21.5	25.3	8	15.4	18.4	23	25.0	29.5
9. FETAL DEATHS	14	9.7	13.4	4	7.7	9.2	10	10.9	15.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	13	92.9	99.0	4	100.0	100.0	9	90.0	98.6
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	9	64.3	51.5	1	25.0	20.0	8	80.0	62.5
10. NEONATAL (UNDER 28 DAYS)	17	11.9	12.0	4	7.8	9.3	13	14.3	13.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	3.6	4.1	2	3.9	3.0	3	3.3	4.8
12. INFANT DEATHS (UNDER 1 YEAR)	22	15.4	16.1	6	11.7	12.2	16	17.6	18.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1032			603			429		
MALES	511			300			211		
FEMALES	521			303			218		
14. AGE									
00-04 YEARS	24			7			17		
05-14 YEARS	3			0			3		
15-24 YEARS	17			11			6		
25-34 YEARS	20			8			12		
35-44 YEARS	41			17			24		
45-54 YEARS	66			31			35		
55-64 YEARS	173			93			80		
65 AND OVER	688			436			252		
15. PLACE OF DEATH									
HOSPITAL	541	52.4	52.8	313	51.9	52.6	228	53.1	53.1
OTHER INSTITUTION	279	27.0	24.8	177	29.4	27.2	102	23.8	21.6
HOME OR NON-INSTITUTION	212	20.5	22.4	113	18.7	20.3	99	23.1	25.3
16. OCCURRENCE									
TOTAL	2490	5.0	5.0	1660	4.4	4.4	830	6.7	6.7
TO RESIDENTS	974	39.1	38.6	567	34.2	33.7	407	49.0	48.4

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

EDEN

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	23			-2			25		
LIVE BIRTHS									
3. TOTAL	195			146			49		
MALES	107			85			22		
FEMALES	88			61			27		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	195	100.0	99.8	146	100.0	99.8	49	100.0	99.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.2	0	0.0	0.2	0	0.0	0.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	16	8.2	8.2	9	6.2	6.8	7	14.3	13.2
6. OUT OF WEDLOCK	43	22.1	19.8	20	13.7	12.3	23	46.9	47.3
7. OCCURRENCE									
TOTAL	620	0.7	0.6	430	0.7	0.6	190	0.7	0.6
TO RESIDENTS	161	26.0	24.1	117	27.2	25.1	44	23.2	21.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	5.1	25.6	0	0.0	23.8	1	20.0	32.3
9. FETAL DEATHS	1	5.1	19.8	0	0.0	19.3	1	20.0	21.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	0		100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	100.0	11.8	0		0.0	1	100.0	50.0
10. NEONATAL (UNDER 28 DAYS)	0	0.0	5.9	0	0.0	4.5	0	0.0	11.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	8.4	0	0.0	6.1	0	0.0	16.7
12. INFANT DEATHS (UNDER 1 YEAR)	0	0.0	14.3	0	0.0	10.6	0	0.0	27.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	172			148			24		
MALES	98			84			14		
FEMALES	74			64			10		
14. AGE									
00-04 YEARS	3			3			0		
05-14 YEARS	3			3			0		
15-24 YEARS	4			4			0		
25-34 YEARS	5			3			2		
35-44 YEARS	4			3			1		
45-54 YEARS	9			5			4		
55-64 YEARS	31			29			2		
65 AND OVER	113			98			15		
15. PLACE OF DEATH									
HOSPITAL	131	76.2	75.4	108	73.0	74.6	23	95.8	81.3
OTHER INSTITUTION	18	10.5	11.8	18	12.2	12.1	0	0.0	9.3
HOME OR NON-INSTITUTION	23	13.4	12.8	22	14.9	13.3	1	4.2	9.3
16. OCCURRENCE									
TOTAL	238	0.5	0.5	194	0.5	0.5	44	0.4	0.3
TO RESIDENTS	125	52.5	53.7	104	53.6	56.8	21	47.7	38.1

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ELIZABETH CITY

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	41			-5			46		
LIVE BIRTHS									
3. TOTAL	226			110			116		
MALES	124			65			59		
FEMALES	102			45			57		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	200	88.5	95.0	86	78.2	91.8	114	98.3	96.4
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.0	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	25	11.1	4.7	23	20.9	7.9	2	1.7	1.5
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
5. PREMATURE BIRTHS	23	10.2	9.5	8	7.3	7.5	15	12.9	11.5
6. OUT OF WEDLOCK	61	27.0	22.8	6	5.5	4.9	55	47.4	41.5
7. OCCURRENCE									
TOTAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TO RESIDENTS	0		100.0	0			0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	30.2	38.4	3	26.8	32.6	4	33.3	44.4
9. FETAL DEATHS	6	25.9	21.8	2	17.9	15.5	4	33.3	28.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	6	100.0	92.0	2	100.0	100.0	4	100.0	87.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	4.0	0	0.0	0.0	0	0.0	6.3
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	33.3	32.0	1	50.0	11.1	1	25.0	43.8
10. NEONATAL (UNDER 28 DAYS)	1	4.4	17.0	1	9.1	17.5	0	0.0	16.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.4	4.5	0	0.0	3.6	1	8.6	5.6
12. INFANT DEATHS (UNDER 1 YEAR)	2	8.8	21.4	1	9.1	20.9	1	8.6	21.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	185			115			70		
MALES	82			50			32		
FEMALES	103			65			38		
14. AGE									
00-04 YEARS	2			1			1		
05-14 YEARS	0			0			0		
15-24 YEARS	1			1			0		
25-34 YEARS	6			3			3		
35-44 YEARS	5			1			4		
45-54 YEARS	9			1			8		
55-64 YEARS	33			18			15		
65 AND OVER	129			90			39		
15. PLACE OF DEATH									
HOSPITAL	132	71.4	71.9	82	71.3	71.8	[illegible]	71.4	72.1
OTHER INSTITUTION	21	11.4	13.2	14	12.2	15.0	7	10.0	10.5
HOME OR NON-INSTITUTION	32	17.3	14.9	19	16.5	13.2	13	18.6	17.4
16. OCCURRENCE									
TOTAL	73	0.1	0.1	50	0.1	0.1	23	0.2	0.2
TO RESIDENTS	44	60.3	58.8	29	58.0	55.3	15	65.2	65.5

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

FAYETTEVILLE

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)									
2. NATURAL INCREASE	1011			472			539		
LIVE BIRTHS									
3. TOTAL	1600			846			754		
MALES	828			438			390		
FEMALES	772			408			364		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1588	99.2	99.5	836	98.8	99.3	752	99.7	99.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	6	0.4	0.1	5	0.6	0.2	1	0.1	0.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	139	8.7	8.7	45	5.3	6.4	94	12.5	11.3
6. OUT OF WEDLOCK	346	21.6	23.0	55	6.5	7.0	291	38.6	40.6
7. OCCURRENCE									
TOTAL	4027	4.8	4.7	2444	4.3	4.3	1583	5.8	5.5
TO RESIDENTS	1079	26.8	28.1	553	22.6	22.8	526	33.2	36.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	32	19.8	26.9	14	16.4	20.6	18	23.6	33.8
9. FETAL DEATHS	16	9.9	12.6	7	8.2	8.3	9	11.8	17.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	15	93.8	99.0	6	85.7	97.0	9	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	1	6.3	1.0	1	14.3	3.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	18.8	29.2	0	0.0	9.1	3	33.3	39.7
10. NEONATAL (UNDER 28 DAYS)	16	10.0	14.5	7	8.3	12.4	9	11.9	16.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	8	5.1	6.1	6	7.2	6.4	2	2.7	5.7
12. INFANT DEATHS (UNDER 1 YEAR)	24	15.0	20.5	13	15.4	18.8	11	14.6	22.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	589			374			215		
MALES	340			211			129		
FEMALES	249			163			86		
14. AGE									
00-04 YEARS	29			16			13		
05-14 YEARS	4			3			1		
15-24 YEARS	19			11			8		
25-34 YEARS	22			13			9		
35-44 YEARS	21			10			11		
45-54 YEARS	58			30			28		
55-64 YEARS	105			68			37		
65 AND OVER	331			223			108		
15. PLACE OF DEATH									
HOSPITAL	372	63.2	71.1	226	60.4	66.8	146	67.9	77.6
OTHER INSTITUTION	153	26.0	24.0	105	28.1	26.8	48	22.3	19.7
HOME OR NON-INSTITUTION	64	10.9	4.9	43	11.5	6.4	21	9.8	2.7
16. OCCURRENCE									
TOTAL	1224	2.5	2.6	764	2.0	2.2	460	3.7	3.9
TO RESIDENTS	440	35.9	37.6	270	35.3	34.5	170	37.0	42.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GARNER

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)									
2. NATURAL INCREASE	76			62			14		
LIVE BIRTHS									
3. TOTAL	143			123			20		
MALES	69			61			8		
FEMALES	74			62			12		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	137	95.8	98.4	117	95.1	98.1	20	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	5	3.5	1.2	5	4.1	1.4	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.3	0	0.0	0.3	0	0.0	0.0
5. PREMATURE BIRTHS	12	8.4	8.6	9	7.3	7.9	3	15.0	13.8
6. OUT OF WEDLOCK	18	12.6	9.9	6	4.9	4.8	12	60.0	44.7
7. OCCURRENCE									
TOTAL	1	0.0	0.0	1	0.0	0.0	0	0.0	0.0
TO RESIDENTS	1	100.0	100.0	1	100.0	100.0	0		
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	1	7.0	24.1	0	0.0	21.5	1	50.0	42.1
9. FETAL DEATHS	0	0.0	8.0	0	0.0	7.7	0	0.0	10.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	0		100.0	0		100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0		0.0	0		0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0		0.0	0		0.0	0		0.0
PERMITTED MIDWIFE	0		0.0	0		0.0	0		0.0
OUT OF WEDLOCK	0		0.0	0		0.0	0		0.0
10. NEONATAL (UNDER 28 DAYS)	1	7.0	16.2	0	0.0	13.9	1	50.0	31.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	7.0	2.7	1	8.1	3.1	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	2	14.0	18.9	1	8.1	17.0	1	50.0	31.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	67			61			6		
MALES	38			36			2		
FEMALES	29			25			4		
14. AGE									
00-04 YEARS	2			1			1		
05-14 YEARS	0			0			0		
15-24 YEARS	2			2			0		
25-34 YEARS	3			2			1		
35-44 YEARS	3			3			0		
45-54 YEARS	9			8			1		
55-64 YEARS	12			12			0		
65 AND OVER	36			33			3		
15. PLACE OF DEATH									
HOSPITAL	49	73.1	69.0	45	73.8	68.8	4	66.7	69.8
OTHER INSTITUTION	12	17.9	17.2	11	18.0	18.6	1	16.7	11.3
HOME OR NON-INSTITUTION	6	9.0	13.8	5	8.2	12.6	1	16.7	18.9
16. OCCURRENCE									
TOTAL	9	0.0	0.0	8	0.0	0.0	1	0.0	0.0
TO RESIDENTS	8	88.9	86.7	7	87.5	85.3	1	100.0	90.9

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GASTONIA

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	155			5			150		
LIVE BIRTHS									
3. TOTAL	697			449			248		
MALES	373			238			135		
FEMALES	324			211			113		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	660	94.7	98.0	427	95.1	98.5	233	94.0	97.1
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	36	5.2	1.6	22	4.9	1.4	14	5.6	2.1
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	61	8.8	8.9	36	8.0	7.7	25	10.1	11.2
6. OUT OF WEDLOCK	179	25.7	23.7	59	13.1	10.7	120	48.4	50.2
7. OCCURRENCE									
TOTAL	2037	2.4	2.4	1648	2.9	2.9	389	1.4	1.4
TO RESIDENTS	597	29.3	29.4	381	23.1	23.9	216	55.5	53.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	26	36.6	29.0	19	41.4	25.5	7	27.8	36.1
9. FETAL DEATHS	14	19.7	13.3	10	21.8	13.8	4	15.9	12.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	13	92.9	93.5	9	90.0	93.8	4	100.0	92.9
PHYSICIAN NOT IN HOSPITAL	0	0.0	4.3	0	0.0	3.1	0	0.0	7.1
#CERTIFIED NURSE MIDWIFE	1	7.1	2.2	1	10.0	3.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	4	28.6	34.8	2	20.0	25.0	2	50.0	57.1
10. NEONATAL (UNDER 28 DAYS)	12	17.2	15.9	9	20.0	11.9	3	12.1	24.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	7.3	4.8	3	6.8	2.7	2	8.2	9.1
12. INFANT DEATHS (UNDER 1 YEAR)	17	24.4	20.6	12	26.7	14.4	5	20.2	33.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	542			444			98		
MALES	294			242			52		
FEMALES	248			202			46		
14. AGE									
00-04 YEARS	17			12			5		
05-14 YEARS	4			4			0		
15-24 YEARS	8			7			1		
25-34 YEARS	21			14			7		
35-44 YEARS	20			18			2		
45-54 YEARS	48			33			15		
55-64 YEARS	98			83			15		
65 AND OVER	326			273			53		
15. PLACE OF DEATH									
HOSPITAL	390	72.0	71.1	321	72.3	71.2	69	70.4	70.5
OTHER INSTITUTION	54	10.0	13.3	45	10.1	14.1	9	9.2	10.0
HOME OR NON-INSTITUTION	98	18.1	15.7	78	17.6	14.7	20	20.4	19.5
16. OCCURRENCE									
TOTAL	851	1.7	1.7	723	1.9	1.9	128	1.0	1.1
TO RESIDENTS	446	52.4	49.9	365	50.5	47.7	81	63.3	60.6

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GOLDSBORO

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)									
2. NATURAL INCREASE	269			131			138		
LIVE BIRTHS									
3. TOTAL	618			317			301		
MALES	303			159			144		
FEMALES	315			158			157		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	611	98.9	99.0	316	99.7	99.6	295	98.0	98.3
PHYSICIAN NOT IN HOSPITAL	7	1.1	1.0	1	0.3	0.4	6	2.0	1.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	56	9.1	9.0	17	5.4	5.5	39	13.0	12.8
6. OUT OF WEDLOCK	134	21.7	22.2	15	4.7	4.3	119	39.5	40.8
7. OCCURRENCE									
TOTAL	1720	2.0	2.1	1108	1.9	1.9	612	2.3	2.3
TO RESIDENTS	585	34.0	33.1	303	27.3	26.5	282	46.1	44.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	13	20.8	24.7	4	12.5	13.9	9	29.5	35.9
9. FETAL DEATHS	8	12.8	12.8	4	12.5	7.0	4	13.1	18.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	8	100.0	97.5	4	100.0	100.0	4	100.0	96.6
PHYSICIAN NOT IN HOSPITAL	0	0.0	2.5	0	0.0	0.0	0	0.0	3.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	25.0	35.0	0	0.0	9.1	2	50.0	44.8
10. NEONATAL (UNDER 28 DAYS)	5	8.1	12.0	0	0.0	7.0	5	16.6	17.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	8.2	6.9	1	3.2	4.5	4	13.5	9.5
12. INFANT DEATHS (UNDER 1 YEAR)	10	16.2	18.9	1	3.2	11.5	9	29.9	26.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	349			186			163		
MALES	183			92			91		
FEMALES	166			94			72		
14. AGE									
00-04 YEARS	11			2			9		
05-14 YEARS	1			0			1		
15-24 YEARS	7			2			5		
25-34 YEARS	2			0			2		
35-44 YEARS	13			3			10		
45-54 YEARS	42			21			21		
55-64 YEARS	70			34			36		
65 AND OVER	203			124			79		
15. PLACE OF DEATH									
HOSPITAL	218	62.5	59.1	119	64.0	60.0	99	60.7	58.1
OTHER INSTITUTION	60	17.2	20.8	36	19.4	23.1	24	14.7	18.2
HOME OR NON-INSTITUTION	71	20.3	20.1	31	16.7	16.9	40	24.5	23.8
16. OCCURRENCE									
TOTAL	576	1.2	1.2	359	1.0	1.0	217	1.8	1.7
TO RESIDENTS	262	45.5	46.0	140	39.0	38.2	122	56.2	59.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GREENSBORO

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	785			330			455		
LIVE BIRTHS									
3. TOTAL	2077			1217			860		
MALES	1086			628			458		
FEMALES	991			589			402		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	2066	99.5	99.6	1208	99.3	99.6	858	99.8	99.6
PHYSICIAN NOT IN HOSPITAL	2	0.1	0.1	0	0.0	0.1	2	0.2	0.2
#CERTIFIED NURSE MIDWIFE	7	0.3	0.1	7	0.6	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	182	8.8	8.3	83	6.8	5.9	99	11.5	11.6
6. OUT OF WEDLOCK	472	22.7	22.0	69	5.7	5.5	403	46.9	43.7
7. OCCURRENCE									
TOTAL	3847	4.6	4.4	2801	4.9	4.6	1046	3.9	3.9
TO RESIDENTS	2019	52.5	55.6	1179	42.1	44.2	840	80.3	84.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	37	17.7	19.9	14	11.4	12.6	23	26.4	29.3
9. FETAL DEATHS	18	8.6	11.2	6	4.9	5.5	12	13.8	18.5
ATTENDANT									
PHYSICIAN IN HOSPITAL	18	100.0	99.2	6	100.0	100.0	12	100.0	98.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.8	0	0.0	0.0	0	0.0	1.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	8	44.4	37.8	0	0.0	3.0	8	66.7	51.2
10. NEONATAL (UNDER 28 DAYS)	19	9.1	8.8	8	6.6	7.2	11	12.8	11.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	6	2.9	3.8	4	3.3	3.4	2	2.4	4.4
12. INFANT DEATHS (UNDER 1 YEAR)	25	12.0	12.6	12	9.9	10.5	13	15.1	15.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1292			887			405		
MALES	645			439			206		
FEMALES	647			448			199		
14. AGE									
00-04 YEARS	32			15			17		
05-14 YEARS	4			1			3		
15-24 YEARS	19			13			6		
25-34 YEARS	40			23			17		
35-44 YEARS	62			37			25		
45-54 YEARS	99			51			48		
55-64 YEARS	232			159			73		
65 AND OVER	804			588			216		
15. PLACE OF DEATH									
HOSPITAL	836	64.7	60.0	554	62.5	58.5	282	69.6	63.5
OTHER INSTITUTION	238	18.4	20.9	183	20.6	23.1	55	13.6	15.9
HOME OR NON-INSTITUTION	218	16.9	19.1	150	16.9	18.4	68	16.8	20.6
16. OCCURRENCE									
TOTAL	1841	3.7	3.6	1381	3.7	3.6	460	3.7	3.6
TO RESIDENTS	1180	64.1	64.5	799	57.9	59.1	381	82.8	80.6

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

GREENVILLE

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	162			97			65		
LIVE BIRTHS									
3. TOTAL	430			239			191		
MALES	202			113			89		
FEMALES	228			126			102		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	430	100.0	100.0	239	100.0	100.0	191	100.0	99.9
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	43	10.0	8.3	14	5.9	4.2	29	15.2	12.5
6. OUT OF WEDLOCK	94	21.9	26.3	8	3.3	3.0	86	45.0	49.6
7. OCCURRENCE									
TOTAL	1957	2.3	2.1	1023	1.8	1.6	934	3.4	3.2
TO RESIDENTS	426	21.8	23.8	236	23.1	23.4	190	20.3	24.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	18.4	22.5	1	4.2	11.3	7	35.9	33.6
9. FETAL DEATHS	4	9.2	9.4	0	0.0	2.8	4	20.5	15.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	0		100.0	4	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	25.0	35.0	0		0.0	1	25.0	41.2
10. NEONATAL (UNDER 28 DAYS)	4	9.3	13.3	1	4.2	8.5	3	15.7	18.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	4.7	3.4	1	4.2	2.9	1	5.3	3.9
12. INFANT DEATHS (UNDER 1 YEAR)	6	14.0	16.6	2	8.4	11.4	4	20.9	21.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	268			142			126		
MALES	134			72			62		
FEMALES	134			70			64		
14. AGE									
00-04 YEARS	6			2			4		
05-14 YEARS	5			3			2		
15-24 YEARS	7			4			3		
25-34 YEARS	11			9			2		
35-44 YEARS	13			7			6		
45-54 YEARS	24			12			12		
55-64 YEARS	52			23			29		
65 AND OVER	150			82			68		
15. PLACE OF DEATH									
HOSPITAL	165	61.6	57.5	89	62.7	57.0	76	60.3	58.1
OTHER INSTITUTION	43	16.0	17.7	28	19.7	19.5	15	11.9	15.6
HOME OR NON-INSTITUTION	60	22.4	24.8	25	17.6	23.5	35	27.8	26.3
16. OCCURRENCE									
TOTAL	758	1.5	1.3	412	1.1	1.0	346	2.8	2.3
TO RESIDENTS	236	31.1	31.5	120	29.1	29.2	116	33.5	34.4

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HAVELOCK

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	549			433			116		
LIVE BIRTHS									
3. TOTAL	583			462			121		
MALES	283			222			61		
FEMALES	300			240			60		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	575	98.6	99.4	455	98.5	99.4	120	99.2	99.6
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.1	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	3	0.5	0.1	3	0.6	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	39	6.7	6.4	23	5.0	5.6	16	13.2	9.9
6. OUT OF WEDLOCK	15	2.6	2.2	5	1.1	1.3	10	8.3	5.6
7. OCCURRENCE									
TOTAL	1	0.0	0.0	1	0.0	0.0	0	0.0	0.0
TO RESIDENTS	1	100.0	100.0	1	100.0	100.0	0		100.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	11.9	14.9	3	6.5	14.4	4	32.3	16.9
9. FETAL DEATHS	5	8.5	9.1	2	4.3	7.7	3	24.2	14.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	100.0	100.0	2	100.0	100.0	3	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	20.0	4.5	0	0.0	0.0	1	33.3	14.3
10. NEONATAL (UNDER 28 DAYS)	2	3.4	5.8	1	2.2	6.7	1	8.3	2.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	1.7	4.6	1	2.2	3.6	0	0.0	8.6
12. INFANT DEATHS (UNDER 1 YEAR)	3	5.1	10.4	2	4.3	10.4	1	8.3	10.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	34			29			5		
MALES	18			16			2		
FEMALES	16			13			3		
14. AGE									
00-04 YEARS	5			3			2		
05-14 YEARS	0			0			0		
15-24 YEARS	2			1			1		
25-34 YEARS	2			2			0		
35-44 YEARS	2			2			0		
45-54 YEARS	3			3			0		
55-64 YEARS	4			4			0		
65 AND OVER	16			14			2		
15. PLACE OF DEATH									
HOSPITAL	29	85.3	85.0	24	82.8	84.2	5	100.0	92.9
OTHER INSTITUTION	2	5.9	8.8	2	6.9	9.8	0	0.0	0.0
HOME OR NON-INSTITUTION	3	8.8	6.1	3	10.3	6.0	0	0.0	7.1
16. OCCURRENCE									
TOTAL	2	0.0	0.0	2	0.0	0.0	0	0.0	0.0
TO RESIDENTS	2	100.0	85.7	2	100.0	83.3	0		100.0

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HENDERSON

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	-27			-31			4		
LIVE BIRTHS									
3. TOTAL	196			88			108		
MALES	100			48			52		
FEMALES	96			40			56		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	195	99.5	98.1	88	100.0	99.7	107	99.1	97.0
PHYSICIAN NOT IN HOSPITAL	1	0.5	0.3	0	0.0	0.0	1	0.9	0.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	1.5	0	0.0	0.3	0	0.0	2.3
5. PREMATURE BIRTHS	32	16.3	12.5	10	11.4	6.3	22	20.4	16.9
6. OUT OF WEDLOCK	72	36.7	35.0	8	9.1	8.3	64	59.3	53.8
7. OCCURRENCE									
TOTAL	1	0.0	0.0	0	0.0	0.0	1	0.0	0.0
TO RESIDENTS	1	100.0	94.4	0		100.0	1	100.0	94.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	35.5	31.9	2	22.7	17.5	5	45.9	42.0
9. FETAL DEATHS	1	5.1	11.3	0	0.0	5.0	1	9.2	15.7
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	0		100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	100.0	45.5	0		0.0	1	100.0	55.6
10. NEONATAL (UNDER 28 DAYS)	6	30.6	20.8	2	22.7	12.6	4	37.0	26.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	15.8	10.6	1	11.6	5.1	2	19.2	14.6
12. INFANT DEATHS (UNDER 1 YEAR)	9	45.9	31.3	3	34.1	17.6	6	55.6	40.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	223			119			104		
MALES	110			62			48		
FEMALES	113			57			56		
14. AGE									
00-04 YEARS	10			3			7		
05-14 YEARS	1			0			1		
15-24 YEARS	4			4			0		
25-34 YEARS	5			3			2		
35-44 YEARS	5			4			1		
45-54 YEARS	18			7			11		
55-64 YEARS	31			16			15		
65 AND OVER	149			82			67		
15. PLACE OF DEATH									
HOSPITAL	151	67.7	64.9	71	59.7	57.7	80	76.9	73.4
OTHER INSTITUTION	42	18.8	22.6	30	25.2	27.8	12	11.5	16.3
HOME OR NON-INSTITUTION	30	13.5	12.6	18	15.1	14.5	12	11.5	10.2
16. OCCURRENCE									
TOTAL	61	0.1	0.2	43	0.1	0.1	18	0.1	0.2
TO RESIDENTS	50	82.0	62.9	34	79.1	65.5	16	88.9	58.5

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HICKORY

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	37			5			32		
LIVE BIRTHS									
3. TOTAL	308			235			73		
MALES	159			120			39		
FEMALES	149			115			34		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	306	99.4	99.6	234	99.6	99.7	72	98.6	99.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.2	0	0.0	0.2	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	1	0.3	0.1	1	0.4	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	28	9.1	8.2	17	7.2	6.8	11	15.1	12.2
6. OUT OF WEDLOCK	64	20.8	23.7	25	10.6	11.1	39	53.4	57.7
7. OCCURRENCE									
TOTAL	1253	1.5	0.9	1149	2.0	1.3	104	0.4	0.2
TO RESIDENTS	209	16.7	17.3	166	14.4	14.6	43	41.3	52.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	9.7	20.4	1	4.2	17.0	2	27.0	29.7
9. FETAL DEATHS	2	6.5	9.9	1	4.2	9.3	1	13.5	11.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	31.3	0	0.0	27.3	0	0.0	40.0
10. NEONATAL (UNDER 28 DAYS)	1	3.2	10.6	0	0.0	7.7	1	13.7	18.5
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.3	6.9	0	0.0	6.0	1	13.9	9.4
12. INFANT DEATHS (UNDER 1 YEAR)	2	6.5	17.5	0	0.0	13.7	2	27.4	27.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	271			230			41		
MALES	125			103			22		
FEMALES	146			127			19		
14. AGE									
00-04 YEARS	5			3			2		
05-14 YEARS	0			0			0		
15-24 YEARS	6			5			1		
25-34 YEARS	5			2			3		
35-44 YEARS	11			7			4		
45-54 YEARS	22			13			9		
55-64 YEARS	39			30			9		
65 AND OVER	183			170			13		
15. PLACE OF DEATH									
HOSPITAL	203	74.9	67.5	166	72.2	66.6	37	90.2	72.3
OTHER INSTITUTION	47	17.3	19.2	44	19.1	20.2	3	7.3	13.9
HOME OR NON-INSTITUTION	21	7.7	13.3	20	8.7	13.2	1	2.4	13.9
16. OCCURRENCE									
TOTAL	529	1.1	0.8	475	1.3	1.0	54	0.4	0.3
TO RESIDENTS	193	36.5	43.3	163	34.3	40.3	30	55.6	69.6

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

HIGH POINT

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	167			-51			218		
LIVE BIRTHS									
3. TOTAL	848			482			366		
MALES	415			234			181		
FEMALES	433			248			185		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	842	99.3	99.5	481	99.8	99.7	361	98.6	99.3
PHYSICIAN NOT IN HOSPITAL	3	0.4	0.2	0	0.0	0.1	3	0.8	0.5
#CERTIFIED NURSE MIDWIFE	1	0.1	0.0	1	0.2	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	68	8.0	8.6	32	6.6	6.4	36	9.8	11.8
6. OUT OF WEDLOCK	245	28.9	26.9	43	8.9	8.0	202	55.2	53.8
7. OCCURRENCE									
TOTAL	1379	1.6	1.7	995	1.7	1.9	384	1.4	1.4
TO RESIDENTS	745	54.0	55.0	405	40.7	42.5	340	88.5	89.2
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	16	18.6	22.1	6	12.4	18.5	10	26.7	27.3
9. FETAL DEATHS	12	14.0	10.8	3	6.2	8.7	9	24.0	13.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	12	100.0	100.0	3	100.0	100.0	9	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	5	41.7	34.7	0	0.0	8.7	5	55.6	57.7
10. NEONATAL (UNDER 28 DAYS)	4	4.7	11.4	3	6.2	9.9	1	2.7	13.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	8	9.5	5.2	3	6.3	3.5	5	13.7	7.7
12. INFANT DEATHS (UNDER 1 YEAR)	12	14.2	16.5	6	12.4	13.3	6	16.4	21.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	681			533			148		
MALES	346			270			76		
FEMALES	335			263			72		
14. AGE									
00-04 YEARS	15			9			6		
05-14 YEARS	0			0			0		
15-24 YEARS	12			11			1		
25-34 YEARS	13			4			9		
35-44 YEARS	30			16			14		
45-54 YEARS	54			41			13		
55-64 YEARS	97			70			27		
65 AND OVER	460			382			78		
15. PLACE OF DEATH									
HOSPITAL	414	60.8	62.0	324	60.8	61.1	90	60.8	65.4
OTHER INSTITUTION	141	20.7	20.6	121	22.7	22.6	20	13.5	13.3
HOME OR NON-INSTITUTION	126	18.5	17.4	88	16.5	16.3	38	25.7	21.3
16. OCCURRENCE									
TOTAL	861	1.7	1.7	721	1.9	1.8	140	1.1	1.2
TO RESIDENTS	563	65.4	65.1	444	61.6	61.3	119	85.0	83.3

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

JACKSONVILLE

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)									
2. NATURAL INCREASE	534			405			129		
LIVE BIRTHS									
3. TOTAL	663			495			168		
MALES	358			267			91		
FEMALES	305			228			77		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	628	94.7	97.7	464	93.7	97.4	164	97.6	98.5
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.2	1	0.2	0.2	0	0.0	0.3
#CERTIFIED NURSE MIDWIFE	29	4.4	1.5	26	5.3	1.8	3	1.8	0.7
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.2	0	0.0	0.3
5. PREMATURE BIRTHS	34	5.1	7.5	18	3.6	6.1	16	9.5	11.3
6. OUT OF WEDLOCK	53	8.0	9.6	19	3.8	4.3	34	20.2	24.1
7. OCCURRENCE									
TOTAL	1093	1.3	0.9	832	1.5	1.0	261	1.0	0.7
TO RESIDENTS	301	27.5	27.1	217	26.1	24.6	84	32.2	34.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	9.0	11.7	4	8.0	11.6	2	11.8	11.9
9. FETAL DEATHS	5	7.5	5.0	4	8.0	5.8	1	5.9	2.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	100.0	100.0	4	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	20.0	21.4	1	25.0	25.0	0	0.0	0.0
10. NEONATAL (UNDER 28 DAYS)	1	1.5	6.8	0	0.0	5.8	1	6.0	9.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	3.0	5.4	1	2.0	4.9	1	6.0	6.7
12. INFANT DEATHS (UNDER 1 YEAR)	3	4.5	12.1	1	2.0	10.7	2	11.9	15.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	129			90			39		
MALES	72			49			23		
FEMALES	57			41			16		
14. AGE									
00-04 YEARS	3			1			2		
05-14 YEARS	0			0			0		
15-24 YEARS	2			1			1		
25-34 YEARS	5			4			1		
35-44 YEARS	8			6			2		
45-54 YEARS	12			5			7		
55-64 YEARS	27			18			9		
65 AND OVER	72			55			17		
15. PLACE OF DEATH									
HOSPITAL	86	66.7	69.1	62	68.9	68.9	24	61.5	69.9
OTHER INSTITUTION	27	20.9	20.8	20	22.2	21.3	7	17.9	19.1
HOME OR NON-INSTITUTION	16	12.4	10.1	8	8.9	9.9	8	20.5	11.0
16. OCCURRENCE									
TOTAL	259	0.5	0.4	195	0.5	0.4	64	0.5	0.3
TO RESIDENTS	87	33.6	31.9	59	30.3	29.7	28	43.8	39.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

KINSTON

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	32			-63			95		
LIVE BIRTHS									
3. TOTAL	380			112			268		
MALES	181			53			128		
FEMALES	199			59			140		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	378	99.5	99.5	112	100.0	99.8	266	99.3	99.3
PHYSICIAN NOT IN HOSPITAL	2	0.5	0.2	0	0.0	0.2	2	0.7	0.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.2	0	0.0	0.0	0	0.0	0.2
5. PREMATURE BIRTHS	39	10.3	10.6	8	7.1	5.2	31	11.6	13.1
6. OUT OF WEDLOCK	164	43.2	36.7	10	8.9	4.8	154	57.5	51.5
7. OCCURRENCE									
TOTAL	990	1.2	1.2	543	0.9	1.0	447	1.6	1.8
TO RESIDENTS	348	35.2	34.6	95	17.5	19.8	253	56.6	51.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	9	23.6	20.7	5	44.2	1 .2	4	14.9	21.4
9. FETAL DEATHS	2	5.2	9.1	1	8.8	6.4	1	3.7	10.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	33.3	0	0.0	25.0	1	100.0	35.7
10. NEONATAL (UNDER 28 DAYS)	7	18.4	11.7	4	35.7	12.9	3	11.2	11.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	2.7	7.7	0	0.0	1.6	1	3.8	10.6
12. INFANT DEATHS (UNDER 1 YEAR)	8	21.1	19.4	4	35.7	14.5	4	14.9	21.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	348			175			173		
MALES	183			88			95		
FEMALES	165			87			78		
14. AGE									
00-04 YEARS	9			4			5		
05-14 YEARS	0			0			0		
15-24 YEARS	12			5			7		
25-34 YEARS	6			3			3		
35-44 YEARS	17			6			11		
45-54 YEARS	23			7			16		
55-64 YEARS	59			27			32		
65 AND OVER	222			123			99		
15. PLACE OF DEATH									
HOSPITAL	218	62.6	64.8	117	66.9	64.5	101	58.4	65.2
OTHER INSTITUTION	70	20.1	20.8	39	22.3	23.1	31	17.9	18.5
HOME OR NON-INSTITUTION	60	17.2	14.4	19	10.9	12.5	41	23.7	16.3
16. OCCURRENCE									
TOTAL	525	1.1	1.2	333	0.9	0.9	192	1.6	1.8
TO RESIDENTS	277	52.8	45.2	142	42.6	37.3	135	70.3	57.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

LAURINBURG

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	83			11			72		
LIVE BIRTHS									
3. TOTAL	216			82			134		
MALES	109			39			70		
FEMALES	107			43			64		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	215	99.5	99.7	82	100.0	99.5	133	99.3	99.8
PHYSICIAN NOT IN HOSPITAL	1	0.5	0.2	0	0.0	0.2	1	0.7	0.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	19	8.8	10.4	6	7.3	7.4	13	9.7	12.4
6. OUT OF WEDLOCK	97	44.9	36.8	14	17.1	11.9	83	61.9	52.7
7. OCCURRENCE									
TOTAL	901	1.1	1.2	329	0.6	0.7	572	2.1	2.3
TO RESIDENTS	206	22.9	20.7	77	23.4	20.7	129	22.6	20.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	32.0	33.5	2	24.4	25.8	5	36.5	38.4
9. FETAL DEATHS	3	13.7	18.1	0	0.0	11.7	3	21.9	22.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	100.0	0		100.0	3	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	3	100.0	45.0	0		0.0	3	100.0	60.0
10. NEONATAL (UNDER 28 DAYS)	4	18.5	15.7	2	24.4	14.3	2	14.9	16.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	9.4	6.6	1	12.5	7.2	1	7.6	6.1
12. INFANT DEATHS (UNDER 1 YEAR)	6	27.8	22.2	3	36.6	21.4	3	22.4	22.7
DEATHS (EXCLUDING FETALS)									
13. TOTAL	133			71			62		
MALES	74			39			35		
FEMALES	59			32			27		
14. AGE									
00-04 YEARS	6			3			3		
05-14 YEARS	1			1			0		
15-24 YEARS	8			3			5		
25-34 YEARS	4			1			3		
35-44 YEARS	1			1			0		
45-54 YEARS	15			4			11		
55-64 YEARS	18			8			10		
65 AND OVER	80			50			30		
15. PLACE OF DEATH									
HOSPITAL	106	79.7	80.3	59	83.1	80.9	47	75.8	79.7
OTHER INSTITUTION	11	8.3	8.6	5	7.0	8.0	6	9.7	9.3
HOME OR NON-INSTITUTION	16	12.0	11.0	7	9.9	11.1	9	14.5	11.0
16. OCCURRENCE									
TOTAL	266	0.5	0.6	135	0.4	0.4	131	1.1	1.1
TO RESIDENTS	100	37.6	35.5	51	37.8	34.9	49	37.4	36.1

* SEE DEFINITIONS AND FORMULAS (SECTION VII)

# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

LENOIR

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	16			-3			19		
LIVE BIRTHS									
3. TOTAL	194			153			41		
MALES	90			69			21		
FEMALES	104			84			20		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	193	99.5	99.5	152	99.3	99.6	41	100.0	99.0
PHYSICIAN NOT IN HOSPITAL	1	0.5	0.3	1	0.7	0.3	0	0.0	0.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	19	9.8	8.6	16	10.5	8.6	3	7.3	8.6
6. OUT OF WEDLOCK	46	23.7	22.8	27	17.6	15.3	19	46.3	49.8
7. OCCURRENCE									
TOTAL	490	0.6	0.6	429	0.7	0.8	61	0.2	0.3
TO RESIDENTS	141	28.8	26.0	104	24.2	21.8	37	60.7	52.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	40.4	31.9	7	44.9	31.7	1	23.8	32.4
9. FETAL DEATHS	4	20.2	18.5	3	19.2	14.5	1	23.8	32.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	3	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	25.0	33.3	0	0.0	27.3	1	100.0	42.9
10. NEONATAL (UNDER 28 DAYS)	4	20.6	13.6	4	26.1	17.4	0	0.0	0.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	5.3	0	0.0	6.8	0	0.0	0.0
12. INFANT DEATHS (UNDER 1 YEAR)	4	20.6	18.8	4	26.1	24.1	0	0.0	0.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	178			156			22		
MALES	85			78			7		
FEMALES	93			78			15		
14. AGE									
00-04 YEARS	4			4			0		
05-14 YEARS	0			0			0		
15-24 YEARS	3			2			1		
25-34 YEARS	4			2			2		
35-44 YEARS	6			6			0		
45-54 YEARS	14			11			3		
55-64 YEARS	26			25			1		
65 AND OVER	121			106			15		
15. PLACE OF DEATH									
HOSPITAL	120	67.4	67.7	103	66.0	68.2	17	77.3	64.3
OTHER INSTITUTION	27	15.2	15.0	23	14.7	14.3	4	18.2	19.6
HOME OR NON-INSTITUTION	31	17.4	17.3	30	19.2	17.5	1	4.5	16.1
16. OCCURRENCE									
TOTAL	285	0.6	0.6	255	0.7	0.7	30	0.2	0.3
TO RESIDENTS	121	42.5	44.5	104	40.8	43.6	17	56.7	51.2

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

LEXINGTON

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	71			29			42		
LIVE BIRTHS									
3. TOTAL	232			152			80		
MALES	109			73			36		
FEMALES	123			79			44		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	220	94.8	97.3	150	98.7	99.2	70	87.5	93.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.4	0	0.0	0.0	0	0.0	1.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.3	0	0.0	0.4	0	0.0	0.0
5. PREMATURE BIRTHS	30	12.9	10.3	15	9.9	8.3	15	18.8	14.2
6. OUT OF WEDLOCK	70	30.2	25.2	20	13.2	10.3	50	62.5	54.2
7. OCCURRENCE									
TOTAL	536	0.6	0.6	447	0.8	0.7	89	0.3	0.3
TO RESIDENTS	177	33.0	33.2	111	24.8	24.9	66	74.2	69.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	33.8	25.6	5	32.3	19.4	3	36.6	37.6
9. FETAL DEATHS	5	21.1	11.0	3	19.4	6.9	2	24.4	18.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	100.0	100.0	3	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	20.0	41.7	0	0.0	20.0	1	50.0	57.1
10. NEONATAL (UNDER 28 DAYS)	3	12.9	14.8	2	13.2	12.6	1	12.5	19.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	8.7	10.3	1	6.7	7.1	1	12.7	16.8
12. INFANT DEATHS (UNDER 1 YEAR)	5	21.6	25.0	3	19.7	19.6	2	25.0	35.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	161			123			38		
MALES	88			71			17		
FEMALES	73			52			21		
14. AGE									
00-04 YEARS	6			4			2		
05-14 YEARS	3			2			1		
15-24 YEARS	0			0			0		
25-34 YEARS	6			2			4		
35-44 YEARS	4			2			2		
45-54 YEARS	15			13			2		
55-64 YEARS	30			24			6		
65 AND OVER	97			76			21		
15. PLACE OF DEATH									
HOSPITAL	125	77.6	63.6	95	77.2	64.4	30	78.9	60.2
OTHER INSTITUTION	23	14.3	19.5	20	16.3	19.7	3	7.9	18.6
HOME OR NON-INSTITUTION	13	8.1	16.8	8	6.5	15.9	5	13.2	21.1
16. OCCURRENCE									
TOTAL	178	0.4	0.3	145	0.4	0.4	33	0.3	0.2
TO RESIDENTS	95	53.4	55.8	68	46.9	52.6	27	81.8	76.3

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

LUMBERTON

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	59			-13			72		
LIVE BIRTHS									
3. TOTAL	257			106			151		
MALES	115			53			62		
FEMALES	142			53			89		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	166	64.6	87.2	67	63.2	86.7	99	65.6	87.6
PHYSICIAN NOT IN HOSPITAL	1	0.4	0.1	0	0.0	0.0	1	0.7	0.3
#CERTIFIED NURSE MIDWIFE	90	35.0	10.7	39	36.8	11.0	51	33.8	10.4
PERMITTED MIDWIFE	0	0.0	2.0	0	0.0	2.4	0	0.0	1.7
5. PREMATURE BIRTHS	21	8.2	8.9	6	5.7	5.5	15	9.9	11.6
6. OUT OF WEDLOCK	84	32.7	29.7	11	10.4	10.4	73	48.3	45.4
7. OCCURRENCE									
TOTAL	1807	2.1	2.4	569	1.0	1.2	1238	4.6	5.0
TO RESIDENTS	247	13.7	13.4	101	17.8	17.5	146	11.8	11.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	26.7	20.9	3	27.5	17.1	4	26.1	24.0
9. FETAL DEATHS	5	19.1	9.7	3	27.5	10.9	2	13.1	8.8
ATTENDANT									
PHYSICIAN IN HOSPITAL	5	100.0	100.0	3	100.0	100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	0	0.0	35.7	0	0.0	14.3	0	0.0	57.1
10. NEONATAL (UNDER 28 DAYS)	2	7.8	11.3	0	0.0	6.3	2	13.2	15.3
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.9	2.8	0	0.0	1.6	1	6.7	3.9
12. INFANT DEATHS (UNDER 1 YEAR)	3	11.7	14.1	0	0.0	7.8	3	19.9	19.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	198			119			79		
MALES	96			55			41		
FEMALES	102			64			38		
14. AGE									
00-04 YEARS	4			0			4		
05-14 YEARS	0			0			0		
15-24 YEARS	0			0			0		
25-34 YEARS	5			3			2		
35-44 YEARS	8			3			5		
45-54 YEARS	16			6			10		
55-64 YEARS	48			29			19		
65 AND OVER	117			78			39		
15. PLACE OF DEATH									
HOSPITAL	155	78.3	80.8	90	75.6	79.1	65	82.3	83.4
OTHER INSTITUTION	35	17.7	14.5	26	21.8	15.6	9	11.4	12.8
HOME OR NON-INSTITUTION	8	4.0	4.7	3	2.5	5.3	5	6.3	3.8
16. OCCURRENCE									
TOTAL	534	1.1	1.2	261	0.7	0.8	273	2.2	2.4
TO RESIDENTS	140	26.2	26.3	78	29.9	32.2	62	22.7	20.6

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MONROE

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	74			13			61		
LIVE BIRTHS									
3. TOTAL	222			106			116		
MALES	104			48			56		
FEMALES	118			58			60		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	221	99.5	99.8	106	100.0	100.0	115	99.1	99.6
PHYSICIAN NOT IN HOSPITAL	1	0.5	0.1	0	0.0	0.0	1	0.9	0.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	22	9.9	10.0	5	4.7	5.1	17	14.7	14.4
6. OUT OF WEDLOCK	87	39.2	34.9	8	7.5	8.7	79	68.1	59.2
7. OCCURRENCE									
TOTAL	725	0.9	0.9	468	0.8	0.8	257	0.9	1.0
TO RESIDENTS	176	24.3	23.4	73	15.6	15.4	103	40.1	37.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	26.5	20.7	1	9.3	7.8	5	42.0	32.5
9. FETAL DEATHS	4	17.7	9.4	1	9.3	5.9	3	25.2	12.6
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	1	100.0	100.0	3	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	4	100.0	70.0	1	100.0	33.3	3	100.0	85.7
10. NEONATAL (UNDER 28 DAYS)	2	9.0	11.4	0	0.0	2.0	2	17.2	20.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	9.1	5.8	2	18.9	5.9	0	0.0	5.6
12. INFANT DEATHS (UNDER 1 YEAR)	4	18.0	17.1	2	18.9	7.9	2	17.2	25.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	148			93			55		
MALES	76			47			29		
FEMALES	72			46			26		
14. AGE									
00-04 YEARS	5			2			3		
05-14 YEARS	2			0			2		
15-24 YEARS	0			0			0		
25-34 YEARS	4			3			1		
35-44 YEARS	6			3			3		
45-54 YEARS	14			7			7		
55-64 YEARS	21			13			8		
65 AND OVER	96			65			31		
15. PLACE OF DEATH									
HOSPITAL	108	73.0	78.9	69	74.2	78.2	39	70.9	80.2
OTHER INSTITUTION	21	14.2	11.7	14	15.1	13.1	7	12.7	8.8
HOME OR NON-INSTITUTION	19	12.8	9.5	10	10.8	8.7	9	16.4	11.0
16. OCCURRENCE									
TOTAL	320	0.6	0.6	241	0.6	0.7	79	0.6	0.6
TO RESIDENTS	104	32.5	32.1	62	25.7	27.0	42	53.2	49.7

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

MORGANTON

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)									
2. NATURAL INCREASE	26			9			17		
LIVE BIRTHS									
3. TOTAL	155			118			37		
MALES	90			71			19		
FEMALES	65			47			18		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	152	98.1	99.2	116	98.3	99.3	36	97.3	99.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	17	11.0	9.1	12	10.2	7.7	5	13.5	13.4
6. OUT OF WEDLOCK	38	24.5	18.8	16	13.6	9.7	22	59.5	45.8
7. OCCURRENCE									
TOTAL	897	1.1	1.0	826	1.4	1.3	71	0.3	0.3
TO RESIDENTS	150	16.7	17.6	114	13.8	14.3	36	50.7	50.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	4	25.5	22.3	2	16.8	23.2	2	52.6	19.7
9. FETAL DEATHS	2	12.7	8.7	1	8.4	8.3	1	26.3	9.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	2	100.0	57.1	1	100.0	60.0	1	100.0	50.0
10. NEONATAL (UNDER 28 DAYS)	2	12.9	13.7	1	8.5	15.0	1	27.0	10.0
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	2.5	0	0.0	1.7	0	0.0	5.0
12. INFANT DEATHS (UNDER 1 YEAR)	2	12.9	16.2	1	8.5	16.7	1	27.0	14.9
DEATHS (EXCLUDING FETALS)									
13. TOTAL	129			109			20		
MALES	71			58			13		
FEMALES	58			51			7		
14. AGE									
00-04 YEARS	2			1			1		
05-14 YEARS	2			2			0		
15-24 YEARS	3			3			0		
25-34 YEARS	4			3			1		
35-44 YEARS	1			0			1		
45-54 YEARS	10			9			1		
55-64 YEARS	20			12			8		
65 AND OVER	87			79			8		
15. PLACE OF DEATH									
HOSPITAL	82	63.6	64.9	69	63.3	65.0	13	65.0	64.7
OTHER INSTITUTION	23	17.8	18.0	19	17.4	17.3	4	20.0	21.6
HOME OR NON-INSTITUTION	24	18.6	17.1	21	19.3	17.7	3	15.0	13.7
16. OCCURRENCE									
TOTAL	256	0.5	0.5	223	0.6	0.6	33	0.3	0.2
TO RESIDENTS	95	37.1	35.8	83	37.2	33.9	12	36.4	51.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

NEW BERN

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	73			11			62		
LIVE BIRTHS									
3. TOTAL	272			136			136		
MALES	160			75			85		
FEMALES	112			61			51		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	268	98.5	99.2	134	98.5	99.7	134	98.5	98.7
PHYSICIAN NOT IN HOSPITAL	2	0.7	0.7	0	0.0	0.0	2	1.5	1.3
#CERTIFIED NURSE MIDWIFE	1	0.4	0.1	1	0.7	0.2	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	25	9.2	10.1	8	5.9	6.9	17	12.5	12.8
6. OUT OF WEDLOCK	84	30.9	33.5	6	4.4	5.4	78	57.4	58.0
7. OCCURRENCE									
TOTAL	961	1.1	1.1	598	1.0	0.9	363	1.3	1.3
TO RESIDENTS	243	25.3	26.6	119	19.9	19.5	124	34.2	37.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	18.2	30.0	3	21.7	25.2	2	14.6	34.1
9. FETAL DEATHS	3	10.9	19.8	2	14.5	15.8	1	7.3	23.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	3	100.0	92.6	2	100.0	100.0	1	100.0	88.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	7.4	0	0.0	0.0	0	0.0	11.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	33.3	33.3	0	0.0	0.0	1	100.0	52.9
10. NEONATAL (UNDER 28 DAYS)	2	7.4	10.4	1	7.4	9.6	1	7.4	11.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	3	11.1	7.5	2	14.8	8.1	1	7.4	7.1
12. INFANT DEATHS (UNDER 1 YEAR)	5	18.4	17.9	3	22.1	17.6	2	14.7	18.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	199			125			74		
MALES	114			68			46		
FEMALES	85			57			28		
14. AGE									
00-04 YEARS	5			3			2		
05-14 YEARS	1			0			1		
15-24 YEARS	4			3			1		
25-34 YEARS	4			1			3		
35-44 YEARS	7			5			2		
45-54 YEARS	16			5			11		
55-64 YEARS	27			14			13		
65 AND OVER	135			94			41		
15. PLACE OF DEATH									
HOSPITAL	158	79.4	79.0	100	80.0	79.8	58	78.4	77.9
OTHER INSTITUTION	23	11.6	13.2	18	14.4	13.9	5	6.8	12.2
HOME OR NON-INSTITUTION	18	9.0	7.8	7	5.6	6.3	11	14.9	9.9
16. OCCURRENCE									
TOTAL	530	1.1	1.1	345	0.9	1.0	185	1.5	1.4
TO RESIDENTS	168	31.7	31.1	102	29.6	27.1	66	35.7	39.2

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

RALEIGH

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	702			319			383		
LIVE BIRTHS									
3. TOTAL	1754			1028			726		
MALES	901			536			365		
FEMALES	853			492			361		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1701	97.0	98.5	982	95.5	97.9	719	99.0	99.3
PHYSICIAN NOT IN HOSPITAL	3	0.2	0.2	1	0.1	0.2	2	0.3	0.2
#CERTIFIED NURSE MIDWIFE	48	2.7	1.1	44	4.3	1.6	4	0.6	0.5
PERMITTED MIDWIFE	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
5. PREMATURE BIRTHS	145	8.3	8.7	51	5.0	5.7	94	12.9	13.0
6. OUT OF WEDLOCK	393	22.4	20.5	55	5.4	5.1	338	46.6	42.5
7. OCCURRENCE									
TOTAL	4505	5.3	5.0	3234	5.6	5.3	1271	4.7	4.5
TO RESIDENTS	1692	37.6	40.2	987	30.5	33.0	705	55.5	57.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	36	20.4	22.0	16	15.5	18.6	20	27.2	26.7
9. FETAL DEATHS	14	7.9	10.1	4	3.9	8.7	10	13.6	12.2
ATTENDANT									
PHYSICIAN IN HOSPITAL	14	100.0	98.9	4	100.0	97.8	10	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	1.1	0	0.0	2.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	5	35.7	26.4	1	25.0	6.5	4	40.0	46.7
10. NEONATAL (UNDER 28 DAYS)	22	12.5	11.9	12	11.7	10.0	10	13.8	14.8
11. POSTNEONATAL (28 DAYS - 1 YEAR)	11	6.4	4.3	3	3.0	2.5	8	11.2	6.9
12. INFANT DEATHS (UNDER 1 YEAR)	33	18.8	16.2	15	14.6	12.5	18	24.8	21.6
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1052			709			343		
MALES	520			341			179		
FEMALES	532			368			164		
14. AGE									
00-04 YEARS	37			16			21		
05-14 YEARS	6			4			2		
15-24 YEARS	28			17			11		
25-34 YEARS	31			14			17		
35-44 YEARS	43			17			26		
45-54 YEARS	88			54			34		
55-64 YEARS	173			117			56		
65 AND OVER	646			470			176		
15. PLACE OF DEATH									
HOSPITAL	709	67.4	66.5	464	65.4	65.9	245	71.4	67.7
OTHER INSTITUTION	176	16.7	17.5	133	18.8	18.9	43	12.5	14.4
HOME OR NON-INSTITUTION	167	15.9	16.1	112	15.8	15.2	55	16.0	17.9
16. OCCURRENCE									
TOTAL	1767	3.6	3.4	1277	3.4	3.3	490	4.0	3.9
TO RESIDENTS	940	53.2	54.6	637	49.9	52.7	303	61.8	59.5

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

REIDSVILLE

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	-2			-3			1		
LIVE BIRTHS									
3. TOTAL	162			92			70		
MALES	75			42			33		
FEMALES	87			50			37		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	161	99.4	99.4	91	98.9	99.3	70	100.0	99.5
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.5	0	0.0	0.4	0	0.0	0.5
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	7	4.3	9.5	2	2.2	6.5	5	7.1	13.1
6. OUT OF WEDLOCK	41	25.3	25.4	5	5.4	9.9	36	51.4	44.3
7. OCCURRENCE									
TOTAL	230	0.3	0.4	110	0.2	0.3	120	0.4	0.6
TO RESIDENTS	70	30.4	27.4	26	23.6	19.9	44	36.7	36.1
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	4	24.2	27.9	2	21.5	24.4	2	27.8	32.0
9. FETAL DEATHS	3	18.2	15.8	1	10.8	8.9	2	27.8	24.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	66.7	92.3	1	100.0	100.0	1	50.0	88.9
PHYSICIAN NOT IN HOSPITAL	1	33.3	7.7	0	0.0	0.0	1	50.0	11.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	33.3	30.8	0	0.0	0.0	1	50.0	44.4
10. NEONATAL (UNDER 28 DAYS)	1	6.2	12.3	1	10.9	15.7	0	0.0	8.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	6.2	6.2	1	11.0	2.3	0	0.0	11.0
12. INFANT DEATHS (UNDER 1 YEAR)	2	12.3	18.5	2	21.7	17.9	0	0.0	19.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	164			95			69		
MALES	84			45			39		
FEMALES	80			50			30		
14. AGE									
00-04 YEARS	2			2			0		
05-14 YEARS	0			0			0		
15-24 YEARS	5			1			4		
25-34 YEARS	5			2			3		
35-44 YEARS	4			0			4		
45-54 YEARS	11			8			3		
55-64 YEARS	35			13			22		
65 AND OVER	102			69			33		
15. PLACE OF DEATH									
HOSPITAL	129	78.7	78.0	76	80.0	76.3	53	76.8	80.7
OTHER INSTITUTION	17	10.4	12.6	10	10.5	13.7	7	10.1	10.9
HOME OR NON-INSTITUTION	18	11.0	9.4	9	9.5	10.1	9	13.0	8.5
16. OCCURRENCE									
TOTAL	268	0.5	0.6	181	0.5	0.5	87	0.7	0.8
TO RESIDENTS	115	42.9	42.6	63	34.8	37.8	52	59.8	52.2

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ROANOKE RAPIDS

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	38			5			33		
LIVE BIRTHS									
3. TOTAL	205			143			62		
MALES	105			78			27		
FEMALES	100			65			35		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	205	100.0	98.1	143	100.0	98.9	62	100.0	95.7
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.4	0	0.0	0.4	0	0.0	0.4
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	1.4	0	0.0	0.6	0	0.0	3.8
5. PREMATURE BIRTHS	16	7.8	7.9	8	5.6	6.6	8	12.9	12.0
6. OUT OF WEDLOCK	41	20.0	18.4	13	9.1	8.7	28	45.2	47.4
7. OCCURRENCE									
TOTAL	805	1.0	0.8	239	0.4	0.4	566	2.1	1.7
TO RESIDENTS	165	20.5	20.8	107	44.8	45.7	58	10.2	8.9
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	9	43.3	29.7	4	27.8	19.9	5	78.1	58.3
9. FETAL DEATHS	3	14.4	10.6	1	6.9	5.7	2	31.3	25.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	66.7	90.0	0	0.0	75.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	33.3	30.0	0	0.0	0.0	1	50.0	50.0
10. NEONATAL (UNDER 28 DAYS)	6	29.3	19.3	3	21.0	14.3	3	48.4	34.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	5.5	0	0.0	5.8	0	0.0	4.4
12. INFANT DEATHS (UNDER 1 YEAR)	6	29.3	24.6	3	21.0	20.0	3	48.4	38.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	167			138			29		
MALES	83			70			13		
FEMALES	84			68			16		
14. AGE									
00-04 YEARS	6			3			3		
05-14 YEARS	0			0			0		
15-24 YEARS	4			3			1		
25-34 YEARS	3			3			0		
35-44 YEARS	5			2			3		
45-54 YEARS	11			7			4		
55-64 YEARS	33			28			5		
65 AND OVER	105			92			13		
15. PLACE OF DEATH									
HOSPITAL	139	83.2	82.3	114	82.6	81.9	25	86.2	85.1
OTHER INSTITUTION	18	10.8	12.3	16	11.6	12.8	2	6.9	8.5
HOME OR NON-INSTITUTION	10	6.0	5.5	8	5.8	5.3	2	6.9	6.4
16. OCCURRENCE									
TOTAL	434	0.9	0.9	237	0.6	0.7	197	1.6	1.5
TO RESIDENTS	136	31.3	30.3	113	47.7	46.4	23	11.7	8.2

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

ROCKY MOUNT

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
	POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)								
2. NATURAL INCREASE	237			74			163		
LIVE BIRTHS									
3. TOTAL	671			312			359		
MALES	348			170			178		
FEMALES	323			142			181		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	670	99.9	99.5	311	99.7	99.4	359	100.0	99.7
PHYSICIAN NOT IN HOSPITAL	1	0.1	0.3	1	0.3	0.5	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.1	0	0.0	0.0
5. PREMATURE BIRTHS	55	8.2	9.4	15	4.8	6.1	40	11.1	12.2
6. OUT OF WEDLOCK	188	28.0	27.5	16	5.1	5.1	172	47.9	46.4
7. OCCURRENCE									
TOTAL	1	0.0	0.0	1	0.0	0.0	0	0.0	0.0
TO RESIDENTS	1	100.0	32.8	1	100.0	28.7	0		87.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	20	29.3	27.0	3	9.6	16.7	17	46.1	35.5
9. FETAL DEATHS	12	17.6	15.2	2	6.4	9.1	10	27.1	20.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	11	91.7	95.8	2	100.0	100.0	9	90.0	94.3
PHYSICIAN NOT IN HOSPITAL	1	8.3	4.2	0	0.0	0.0	1	10.0	5.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	10	83.3	54.2	1	50.0	23.1	9	90.0	65.7
10. NEONATAL (UNDER 28 DAYS)	8	11.9	11.9	1	3.2	7.7	7	19.5	15.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	3.0	5.9	1	3.2	5.0	1	2.8	6.6
12. INFANT DEATHS (UNDER 1 YEAR)	10	14.9	17.7	2	6.4	12.7	8	22.3	22.0
DEATHS (EXCLUDING FETALS)									
13. TOTAL	434			238			196		
MALES	227			122			105		
FEMALES	207			116			91		
14. AGE									
00-04 YEARS	11			2			9		
05-14 YEARS	1			0			1		
15-24 YEARS	4			2			2		
25-34 YEARS	9			2			7		
35-44 YEARS	14			2			12		
45-54 YEARS	26			13			13		
55-64 YEARS	78			38			40		
65 AND OVER	291			179			112		
15. PLACE OF DEATH									
HOSPITAL	279	64.3	66.9	155	65.1	64.8	124	63.3	69.8
OTHER INSTITUTION	74	17.1	16.7	49	20.6	19.0	25	12.8	13.5
HOME OR NON-INSTITUTION	81	18.7	16.4	34	14.3	16.2	47	24.0	16.8
16. OCCURRENCE									
TOTAL	143	0.3	0.3	77	0.2	0.3	66	0.5	0.3
TO RESIDENTS	117	81.8	73.2	61	79.2	70.6	56	84.8	78.7

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

SALISBURY

	TOTAL			WHITE			NONWHITE		
ITEM	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	-75			-142			67		
LIVE BIRTHS									
3. TOTAL	284			131			153		
MALES	143			67			76		
FEMALES	141			64			77		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	282	99.3	99.7	131	100.0	99.7	151	98.7	99.7
PHYSICIAN NOT IN HOSPITAL	1	0.4	0.1	0	0.0	0.0	1	0.7	0.1
#CERTIFIED NURSE MIDWIFE	0	0.0	0.1	0	0.0	0.1	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	28	9.9	9.9	11	8.4	7.0	17	11.1	12.6
6. OUT OF WEDLOCK	78	27.5	27.4	4	3.1	6.0	74	48.4	47.5
7. OCCURRENCE									
TOTAL	1042	1.2	1.3	743	1.3	1.4	299	1.1	1.1
TO RESIDENTS	262	25.1	25.1	117	15.7	16.3	145	48.5	48.5
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	8	27.8	27.3	5	37.3	20.2	3	19.5	33.8
9. FETAL DEATHS	4	13.9	13.3	3	22.4	11.6	1	6.5	14.9
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	100.0	100.0	3	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	25.0	36.8	1	33.3	12.5	0	0.0	54.5
10. NEONATAL (UNDER 28 DAYS)	4	14.1	14.2	2	15.3	8.8	2	13.1	19.2
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	3.6	3.6	1	7.8	2.9	0	0.0	4.2
12. INFANT DEATHS (UNDER 1 YEAR)	5	17.6	17.7	3	22.9	11.7	2	13.1	23.4
DEATHS (EXCLUDING FETALS)									
13. TOTAL	359			273			86		
MALES	187			132			55		
FEMALES	172			141			31		
14. AGE									
00-04 YEARS	5			3			2		
05-14 YEARS	0			0			0		
15-24 YEARS	7			4			3		
25-34 YEARS	6			4			2		
35-44 YEARS	8			4			4		
45-54 YEARS	22			11			11		
55-64 YEARS	53			40			13		
65 AND OVER	258			207			51		
15. PLACE OF DEATH									
HOSPITAL	212	59.1	61.5	152	55.7	58.4	60	69.8	69.5
OTHER INSTITUTION	118	32.9	28.7	101	37.0	31.4	17	19.8	21.7
HOME OR NON-INSTITUTION	29	8.1	9.8	20	7.3	10.2	9	10.5	8.8
16. OCCURRENCE									
TOTAL	1021	2.1	1.9	826	2.2	2.0	195	1.6	1.6
TO RESIDENTS	321	31.4	29.4	240	29.1	26.5	81	41.5	40.1

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

SANFORD

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
	POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)								
2. NATURAL INCREASE	97			34			63		
LIVE BIRTHS									
3. TOTAL	243			136			107		
MALES	124			72			52		
FEMALES	119			64			55		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	239	98.4	99.4	132	97.1	99.2	107	100.0	99.6
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.0	0	0.0	0.2
#CERTIFIED NURSE MIDWIFE	4	1.6	0.5	4	2.9	0.8	0	0.0	0.2
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	29	11.9	10.6	10	7.4	8.4	19	17.8	13.4
6. OUT OF WEDLOCK	76	31.3	30.6	14	10.3	9.9	62	57.9	56.7
7. OCCURRENCE									
TOTAL	558	0.7	0.8	403	0.7	0.9	155	0.6	0.7
TO RESIDENTS	155	27.8	25.2	93	23.1	20.4	62	40.0	37.7
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	5	20.4	19.6	3	21.9	16.1	2	18.5	24.0
9. FETAL DEATHS	2	8.2	9.8	1	7.3	4.8	1	9.3	16.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	54.5	0	0.0	0.0	1	100.0	75.0
10. NEONATAL (UNDER 28 DAYS)	3	12.3	9.9	2	14.7	11.3	1	9.3	8.1
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.2	6.4	0	0.0	1.6	1	9.4	12.3
12. INFANT DEATHS (UNDER 1 YEAR)	4	16.5	16.2	2	14.7	12.9	2	18.7	20.3
DEATHS (EXCLUDING FETALS)									
13. TOTAL	146			102			44		
MALES	82			55			27		
FEMALES	64			47			17		
14. AGE									
00-04 YEARS	6			2			4		
05-14 YEARS	1			0			1		
15-24 YEARS	8			4			4		
25-34 YEARS	3			1			2		
35-44 YEARS	6			3			3		
45-54 YEARS	7			6			1		
55-64 YEARS	17			11			6		
65 AND OVER	98			75			23		
15. PLACE OF DEATH									
HOSPITAL	104	71.2	70.2	77	75.5	71.3	27	61.4	67.9
OTHER INSTITUTION	20	13.7	15.8	13	12.7	16.3	7	15.9	14.7
HOME OR NON-INSTITUTION	22	15.1	13.9	12	11.8	12.5	10	22.7	17.4
16. OCCURRENCE									
TOTAL	242	0.5	0.5	181	0.5	0.5	61	0.5	0.6
TO RESIDENTS	97	40.1	39.5	69	38.1	37.7	28	45.9	44.4

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

SHELBY

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	-17			-79			62		
LIVE BIRTHS									
3. TOTAL	206			85			121		
MALES	110			43			67		
FEMALES	96			42			54		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	206	100.0	100.0	85	100.0	100.0	121	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	19	9.2	10.4	6	7.1	7.7	13	10.7	12.5
6. OUT OF WEDLOCK	74	35.9	33.5	5	5.9	8.9	69	57.0	52.7
7. OCCURRENCE									
TOTAL	1143	1.4	1.5	794	1.4	1.6	349	1.3	1.3
TO RESIDENTS	187	16.4	16.6	74	9.3	9.8	113	32.4	34.8
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	3	14.4	24.6	3	34.5	32.1	0	0.0	18.8
9. FETAL DEATHS	2	9.6	8.8	2	23.0	12.0	0	0.0	6.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	2	100.0	100.0	0		100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0		0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0		0.0
OUT OF WEDLOCK	0	0.0	30.0	0	0.0	33.3	0		25.0
10. NEONATAL (UNDER 28 DAYS)	1	4.9	16.0	1	11.8	20.3	0	0.0	12.6
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.9	9.0	0	0.0	4.1	1	8.3	12.8
12. INFANT DEATHS (UNDER 1 YEAR)	2	9.7	24.8	1	11.8	24.3	1	8.3	25.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	223			164			59		
MALES	121			84			37		
FEMALES	102			80			22		
14. AGE									
00-04 YEARS	3			1			2		
05-14 YEARS	2			0			2		
15-24 YEARS	7			4			3		
25-34 YEARS	3			2			1		
35-44 YEARS	6			2			4		
45-54 YEARS	16			9			7		
55-64 YEARS	32			25			7		
65 AND OVER	154			121			33		
15. PLACE OF DEATH									
HOSPITAL	163	73.1	67.9	110	67.1	66.4	53	89.8	72.1
OTHER INSTITUTION	36	16.1	17.1	32	19.5	19.1	4	6.8	11.8
HOME OR NON-INSTITUTION	24	10.8	15.0	22	13.4	14.6	2	3.4	16.1
16. OCCURRENCE									
TOTAL	568	1.1	1.0	461	1.2	1.1	107	0.9	0.8
TO RESIDENTS	197	34.7	34.0	146	31.7	30.9	51	47.7	47.1

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

STATESVILLE

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
	POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)								
2. NATURAL INCREASE	20			-59			79		
LIVE BIRTHS									
3. TOTAL	253			122			131		
MALES	126			59			67		
FEMALES	127			63			64		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	251	99.2	99.4	121	99.2	99.0	130	99.2	99.8
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	29	11.5	9.5	12	9.8	5.8	17	13.0	13.6
6. OUT OF WEDLOCK	92	36.4	33.9	10	8.2	7.1	82	62.6	62.5
7. OCCURRENCE									
TOTAL	1070	1.3	1.2	819	1.4	1.4	251	0.9	0.9
TO RESIDENTS	236	22.1	23.3	118	14.4	15.6	118	47.0	49.6
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	27.1	32.6	3	24.4	26.5	4	29.6	38.9
9. FETAL DEATHS	5	19.4	16.7	1	8.1	10.3	4	29.6	23.4
ATTENDANT									
PHYSICIAN IN HOSPITAL	4	80.0	95.5	1	100.0	100.0	3	75.0	93.3
PHYSICIAN NOT IN HOSPITAL	1	20.0	4.5	0	0.0	0.0	1	25.0	6.7
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	3	60.0	54.5	0	0.0	0.0	3	75.0	80.0
10. NEONATAL (UNDER 28 DAYS)	2	7.9	16.2	2	16.4	16.4	0	0.0	15.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	1	4.0	7.8	0	0.0	4.5	1	7.6	11.3
12. INFANT DEATHS (UNDER 1 YEAR)	3	11.9	23.9	2	16.4	20.8	1	7.6	27.1
DEATHS (EXCLUDING FETALS)									
13. TOTAL	233			181			52		
MALES	129			100			29		
FEMALES	104			81			23		
14. AGE									
00-04 YEARS	4			3			1		
05-14 YEARS	1			1			0		
15-24 YEARS	6			6			0		
25-34 YEARS	4			2			2		
35-44 YEARS	7			4			3		
45-54 YEARS	11			6			5		
55-64 YEARS	44			36			8		
65 AND OVER	156			123			33		
15. PLACE OF DEATH									
HOSPITAL	171	73.4	70.2	132	72.9	71.5	39	75.0	66.8
OTHER INSTITUTION	26	11.2	15.5	21	11.6	16.3	5	9.6	13.2
HOME OR NON-INSTITUTION	36	15.5	14.3	28	15.5	12.2	8	15.4	20.0
16. OCCURRENCE									
TOTAL	478	1.0	0.9	406	1.1	1.0	72	0.6	0.6
TO RESIDENTS	193	40.4	42.9	149	36.7	37.8	44	61.1	68.3

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

THOMASVILLE

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	-4			-23			19		
LIVE BIRTHS									
3. TOTAL	178			116			62		
MALES	88			56			32		
FEMALES	90			60			30		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	178	100.0	99.4	116	100.0	99.5	62	100.0	99.2
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.6	0	0.0	0.5	0	0.0	0.8
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	14	7.9	8.8	7	6.0	5.7	7	11.3	14.1
6. OUT OF WEDLOCK	46	25.8	26.4	7	6.0	9.9	39	62.9	54.9
7. OCCURRENCE									
TOTAL	435	0.5	0.5	373	0.7	0.7	62	0.2	0.3
TO RESIDENTS	112	25.7	30.0	68	18.2	20.6	44	71.0	83.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	4	22.3	25.0	3	25.9	16.8	1	15.9	38.9
9. FETAL DEATHS	1	5.6	15.4	0	0.0	10.7	1	15.9	23.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	1	100.0	100.0	0		100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	1	100.0	50.0	0		14.3	1	100.0	77.8
10. NEONATAL (UNDER 28 DAYS)	3	16.9	9.7	3	25.9	6.2	0	0.0	15.9
11. POSTNEONATAL (28 DAYS - 1 YEAR)	0	0.0	5.9	0	0.0	3.1	0	0.0	10.8
12. INFANT DEATHS (UNDER 1 YEAR)	3	16.9	15.6	3	25.9	9.2	0	0.0	26.5
DEATHS (EXCLUDING FETALS)									
13. TOTAL	182			139			43		
MALES	90			70			20		
FEMALES	92			69			23		
14. AGE									
00-04 YEARS	5			4			1		
05-14 YEARS	2			2			0		
15-24 YEARS	8			6			2		
25-34 YEARS	7			6			1		
35-44 YEARS	3			2			1		
45-54 YEARS	14			5			9		
55-64 YEARS	34			28			6		
65 AND OVER	109			86			23		
15. PLACE OF DEATH									
HOSPITAL	139	76.4	71.9	102	73.4	70.5	37	86.0	76.0
OTHER INSTITUTION	28	15.4	18.2	25	18.0	19.3	3	7.0	14.8
HOME OR NON-INSTITUTION	15	8.2	9.9	12	8.6	10.2	3	7.0	9.2
16. OCCURRENCE									
TOTAL	290	0.6	0.5	252	0.7	0.6	38	0.3	0.3
TO RESIDENTS	137	47.2	44.9	104	41.3	39.1	33	86.8	82.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WILMINGTON

ITEM	TOTAL			WHITE			NONWHITE		
	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81	NUMBER 1981	RATE* 1981	RATE* 77-81
POPULATION									
POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)									
2. NATURAL INCREASE	113			9			104		
LIVE BIRTHS									
3. TOTAL	654			320			334		
MALES	328			162			166		
FEMALES	326			158			168		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	651	99.5	99.6	317	99.1	99.1	334	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.1	0	0.0	0.2	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	60	9.2	9.9	20	6.3	7.2	40	12.0	12.5
6. OUT OF WEDLOCK	240	36.7	32.9	38	11.9	10.1	202	60.5	55.6
7. OCCURRENCE									
TOTAL	2362	2.8	2.6	1490	2.6	2.5	872	3.2	2.9
TO RESIDENTS	620	26.2	27.9	302	20.3	21.3	318	36.5	40.3
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	6	9.1	17.1	3	9.3	12.7	3	9.0	21.6
9. FETAL DEATHS	2	3.0	6.6	1	3.1	4.2	1	3.0	9.0
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	1	100.0	100.0	1	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	1	50.0	63.6	0	0.0	14.3	1	100.0	86.7
10. NEONATAL (UNDER 28 DAYS)	4	6.1	10.6	2	6.2	8.5	2	6.0	12.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	4	6.2	6.4	0	0.0	3.7	4	12.0	9.2
12. INFANT DEATHS (UNDER 1 YEAR)	8	12.2	17.0	2	6.2	12.1	6	18.0	21.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	541			311			230		
MALES	282			163			119		
FEMALES	259			148			111		
14. AGE									
00-04 YEARS	10			2			8		
05-14 YEARS	1			0			1		
15-24 YEARS	5			4			1		
25-34 YEARS	10			7			3		
35-44 YEARS	17			5			12		
45-54 YEARS	31			19			12		
55-64 YEARS	123			63			60		
65 AND OVER	344			211			133		
15. PLACE OF DEATH									
HOSPITAL	359	66.4	65.4	212	68.2	65.0	147	63.9	66.0
OTHER INSTITUTION	63	11.6	15.6	38	12.2	16.8	25	10.9	13.8
HOME OR NON-INSTITUTION	119	22.0	19.0	61	19.6	18.3	58	25.2	20.2
16. OCCURRENCE									
TOTAL	872	1.8	1.7	574	1.5	1.5	298	2.4	2.3
TO RESIDENTS	418	47.9	47.6	229	39.9	40.3	189	63.4	61.8

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WILSON

	TOTAL			WHITE			NONWHITE		
	NUMBER	RATE*		NUMBER	RATE*		NUMBER	RATE*	
ITEM	1981	1981	77-81	1981	1981	77-81	1981	1981	77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	172			36			136		
LIVE BIRTHS									
3. TOTAL	525			242			283		
MALES	286			136			150		
FEMALES	239			106			133		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	443	84.4	92.8	235	97.1	98.4	208	73.5	87.8
PHYSICIAN NOT IN HOSPITAL	1	0.2	0.2	0	0.0	0.1	1	0.4	0.2
#CERTIFIED NURSE MIDWIFE	81	15.4	6.1	7	2.9	1.4	74	26.1	10.4
PERMITTED MIDWIFE	0	0.0	0.9	0	0.0	0.2	0	0.0	1.5
5. PREMATURE BIRTHS	44	8.4	9.8	12	5.0	4.7	32	11.3	14.4
6. OUT OF WEDLOCK	167	31.8	29.1	16	6.6	4.7	151	53.4	51.0
7. OCCURRENCE									
TOTAL	1205	1.4	1.4	663	1.2	1.1	542	2.0	2.0
TO RESIDENTS	503	41.7	40.5	229	34.5	35.0	274	50.6	47.0
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	7	13.3	23.8	2	8.3	16.0	5	17.5	30.8
9. FETAL DEATHS	2	3.8	11.9	0	0.0	5.9	2	7.0	17.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	2	100.0	100.0	0		100.0	2	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0		0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0		0.0	0	0.0	0.0
OUT OF WEDLOCK	2	100.0	40.0	0		0.0	2	100.0	52.2
10. NEONATAL (UNDER 28 DAYS)	5	9.5	12.1	2	8.3	10.2	3	10.6	13.7
11. POSTNEONATAL (28 DAYS - 1 YEAR)	5	9.6	7.3	2	8.3	2.6	3	10.7	11.6
12. INFANT DEATHS (UNDER 1 YEAR)	10	19.0	19.3	4	16.5	12.7	6	21.2	25.2
DEATHS (EXCLUDING FETALS)									
13. TOTAL	353			206			147		
MALES	186			105			81		
FEMALES	167			101			66		
14. AGE									
00-04 YEARS	12			4			8		
05-14 YEARS	0			0			0		
15-24 YEARS	9			7			2		
25-34 YEARS	13			6			7		
35-44 YEARS	7			0			7		
45-54 YEARS	31			18			13		
55-64 YEARS	63			39			24		
65 AND OVER	218			132			86		
15. PLACE OF DEATH									
HOSPITAL	294	83.3	81.8	165	80.1	81.0	129	87.8	82.9
OTHER INSTITUTION	46	13.0	13.5	31	15.0	14.1	15	10.2	12.6
HOME OR NON-INSTITUTION	13	3.7	4.7	10	4.9	4.9	3	2.0	4.5
16. OCCURRENCE									
TOTAL	691	1.4	1.5	459	1.2	1.3	232	1.9	2.1
TO RESIDENTS	301	43.6	40.7	174	37.9	35.6	127	54.7	50.1

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

SELECTED VITAL STATISTICS FOR 1977-1981

WINSTON SALEM

ITEM	TOTAL NUMBER 1981	TOTAL RATE* 1981	TOTAL RATE* 77-81	WHITE NUMBER 1981	WHITE RATE* 1981	WHITE RATE* 77-81	NONWHITE NUMBER 1981	NONWHITE RATE* 1981	NONWHITE RATE* 77-81
POPULATION									
				POPULATION NOT AVAILABLE FOR CITIES (SEE SECTION VI)					
2. NATURAL INCREASE	438			101			337		
LIVE BIRTHS									
3. TOTAL	1768			901			867		
MALES	900			479			421		
FEMALES	868			422			446		
4. ATTENDANT									
PHYSICIAN IN HOSPITAL	1755	99.3	99.5	889	98.7	99.3	866	99.9	99.6
PHYSICIAN NOT IN HOSPITAL	2	0.1	0.2	1	0.1	0.1	1	0.1	0.2
#CERTIFIED NURSE MIDWIFE	10	0.6	0.2	10	1.1	0.3	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
5. PREMATURE BIRTHS	168	9.5	9.6	54	6.0	5.9	114	13.1	12.9
6. OUT OF WEDLOCK	556	31.4	33.8	69	7.7	7.3	487	56.2	57.0
7. OCCURRENCE									
TOTAL	4435	5.3	5.1	3309	5.8	5.5	1126	4.2	4.2
TO RESIDENTS	1737	39.2	39.4	874	26.4	24.9	863	76.6	79.4
FETAL & INFANT MORTALITY									
8. PERINATAL DEATHS	24	13.5	19.9	13	14.3	19.0	11	12.6	20.6
9. FETAL DEATHS	16	9.0	9.9	7	7.7	8.4	9	10.3	11.3
ATTENDANT									
PHYSICIAN IN HOSPITAL	16	100.0	100.0	7	100.0	100.0	9	100.0	100.0
PHYSICIAN NOT IN HOSPITAL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
#CERTIFIED NURSE MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
PERMITTED MIDWIFE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUT OF WEDLOCK	7	43.8	44.2	1	14.3	14.7	6	66.7	63.5
10. NEONATAL (UNDER 28 DAYS)	8	4.5	10.0	6	6.7	10.7	2	2.3	9.4
11. POSTNEONATAL (28 DAYS - 1 YEAR)	2	1.1	3.5	1	1.1	2.5	1	1.2	4.4
12. INFANT DEATHS (UNDER 1 YEAR)	10	5.7	13.5	7	7.8	13.2	3	3.5	13.8
DEATHS (EXCLUDING FETALS)									
13. TOTAL	1330			800			530		
MALES	673			393			280		
FEMALES	657			407			250		
14. AGE									
00-04 YEARS	15			8			7		
05-14 YEARS	9			7			2		
15-24 YEARS	19			13			6		
25-34 YEARS	41			16			25		
35-44 YEARS	60			20			40		
45-54 YEARS	107			43			64		
55-64 YEARS	233			141			92		
65 AND OVER	846			552			294		
15. PLACE OF DEATH									
HOSPITAL	931	70.0	68.1	542	67.7	66.0	389	73.4	71.1
OTHER INSTITUTION	222	16.7	18.5	152	19.0	19.9	70	13.2	16.5
HOME OR NON-INSTITUTION	177	13.3	13.4	106	13.2	14.1	71	13.4	12.4
16. OCCURRENCE									
TOTAL	2741	5.5	5.6	2107	5.6	5.6	634	5.1	5.3
TO RESIDENTS	1197	43.7	44.4	706	33.5	33.8	491	77.4	78.1

* SEE DEFINITIONS AND FORMULAS (SECTION VII)
# ITEM ADDED 1980

S5940-1.2

LEADING CAUSES OF MORTALITY

North Carolina
Vital Statistics
1981—Volume 2

SCHS

State Center For Health Statistics

N.C. Department of Human Resources
Division of Health Services

STATE OF NORTH CAROLINA
James B. Hunt, Jr., Governor

DEPARTMENT OF HUMAN RESOURCES
Sarah T. Morrow, M.D., M.P.H., Secretary

DIVISION OF HEALTH SERVICES
Ronald H. Levine, M.D., M.P.H.
State Health Director

Margaret Woodcock, M.A., M.P.A.
Asst. Director for Management Services

STATE CENTER FOR HEALTH STATISTICS
Charles J. Rothwell, M.B.A., M.S., Director

September 1983

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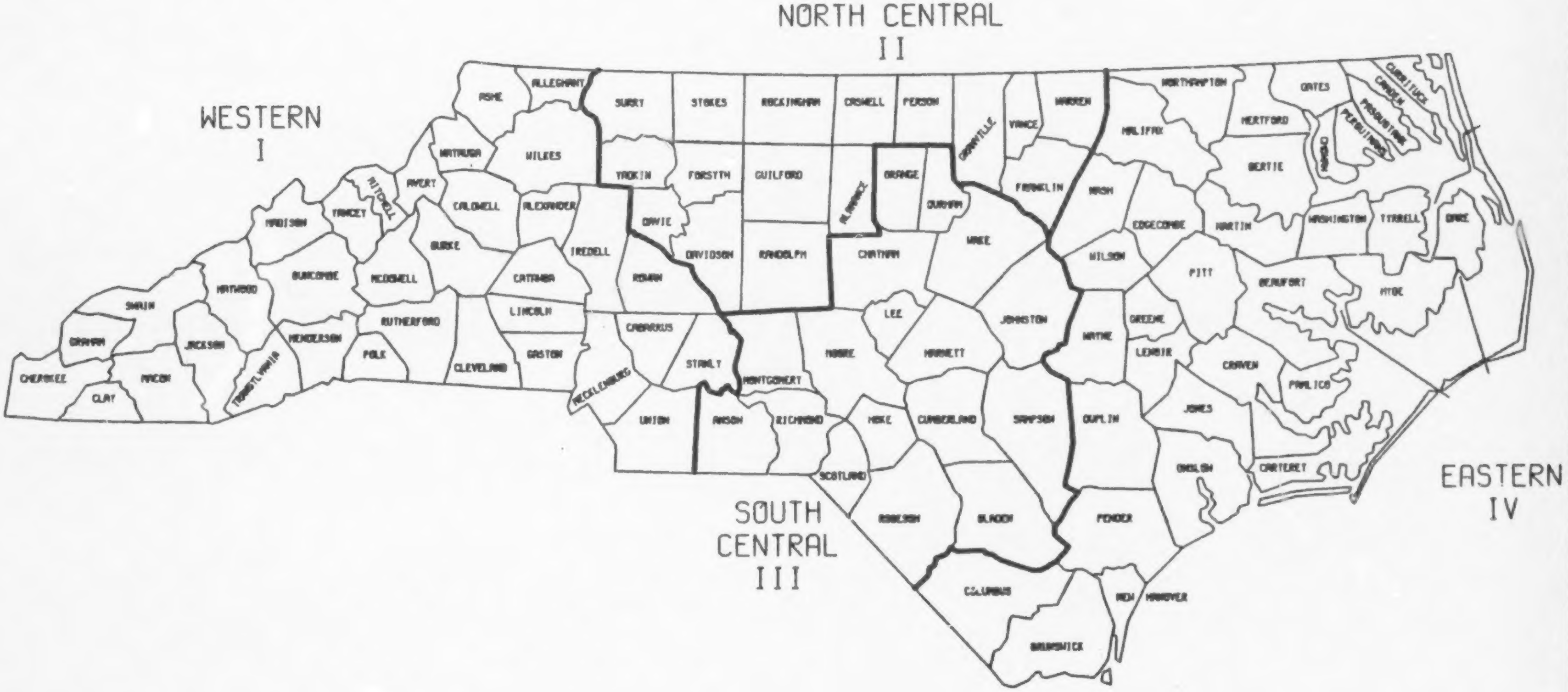
NORTH CAROLINA DHR REGIONS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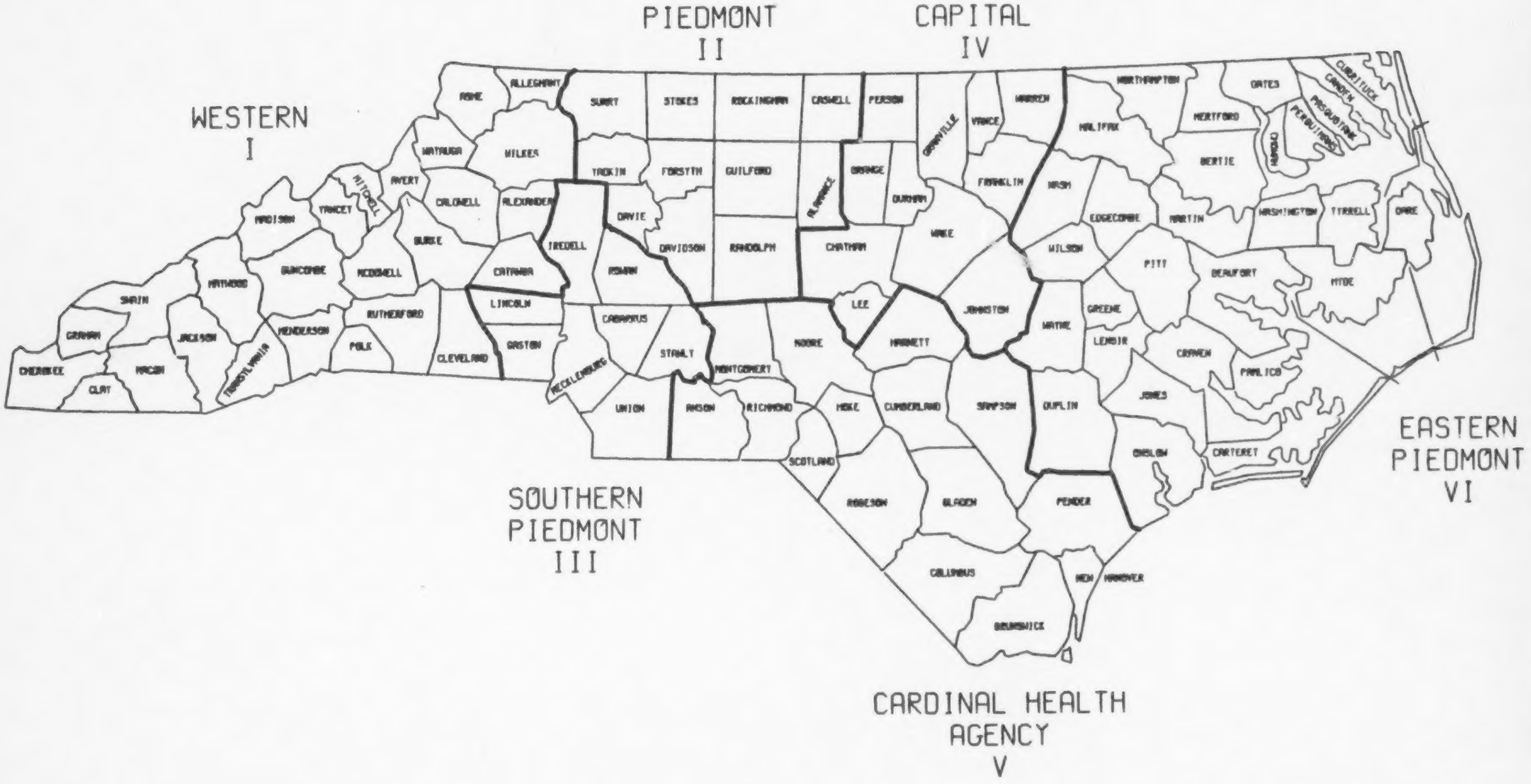
BRUNSWICK

NORTH CAROLINA HEALTH SERVICE AREAS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NEW HANOVER
COLUMBUS
BRUNSWICK

PREFACE

The State Center for Health Statistics has produced triennially a major publication describing North Carolina's mortality experience for a five-year period. Such a publication was due for 1975-79 data, but the change in 1979 from the Eighth to the Ninth Revision of the International Classification of Diseases (ICD) made it undesirable to combine pre-1979 cause-of-death data with data for 1979 and later years. Changes in the cause-of-death classification were described in detail in the abbreviated 1979 edition Leading Causes of Mortality. The standard format is resumed in this 1981 edition, with three-year rates (1979-81) replacing five-year rates. The delay in publishing this volume has been largely due to a delay in obtaining the 1981 population projections based on the 1980 census, which are used in the denominators of the death rates.

This edition of Leading Causes of Mortality is the third major publication of its type on North Carolina's mortality experience. This volume includes statistical tables, maps, and graphs, as well as cause-specific discussions of trends, geographic patterns, risk factors, and recent research. An overview of the mortality experience in North Carolina is also presented.

The tables in this report provide selected 1981 mortality statistics for counties, Department of Human Resources regions, Health Service Areas, and the state (see maps on preceding pages). More than a dozen of North Carolina's leading causes of mortality are depicted in these tables; in addition, various cancer sites and total infant mortality are included.

Similar to the last major publication, multiple conditions present at death are included in this volume. This section highlights the 1982 publication Multiple Conditions Present At Death: A Special Study and presents the data for 1981 deaths.

A separate technical notes section has been included in this publication. This section is necessary not only to discuss appropriate interpretation(s) of mortality rates and changes in both the ICD codes and population bases, but also to introduce two new statistical procedures used in this volume--Flagging Biased Rates and Geographic Clustering of Counties. Both procedures are discussed in detail in Section II and where relevant in the other sections.

Special thanks go to Mr. Shannon Hallman of the Health Services Research Center, University of North Carolina at Chapel Hill for preparing Section III--North Carolina's Population and Health Care Resources. For the first time data have been included on nurse practitioners and physician assistants and on skilled nursing and intermediate care beds.

If there are any questions concerning this publication, please contact:

Delton Atkinson
State Center for Health Statistics
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602
(919) 733-4728

I. Introduction

PURPOSE AND ORGANIZATION

Although North Carolina has traditionally experienced low death rates, our status among states has worsened. In 1960, only seven of the 50 states had death rates lower than North Carolina, and this increased to 14 in 1970 (1). In 1981, 20 states had lower rates and three had the same rate (2). Furthermore, while many of the state's cause-specific rates are still below United States levels, North Carolina's age-adjusted rates are usually higher. For example, cerebrovascular disease, motor vehicle accidents, all other accidents and adverse effects, pneumonia and influenza, and nephritis, nephrotic syndrome, and nephrosis are causes for which North Carolina's 1981 adjusted rates were at least 10 percent above the corresponding United States rates.

These facts represent a serious challenge to health officials throughout the state to (i) identify high-risk areas in order to strategically apply medical and other health services, and (ii) isolate those determinants of mortality that permit intervention. The data in this volume are intended to aid in these areas of investigation by providing information against which North Carolina's county and regional mortality may be assessed in the present and evaluated in the future.

Ten sections comprise this edition of Leading Causes of Mortality. This section presents an overview of mortality experience in North Carolina as well as the purpose and organization of the document. Section II provides information concerning the calculation, interpretation, and appropriate use of adjusted and unadjusted rates. In past editions of this volume, readers were cautioned about using adjusted rates with a small number of deaths in the numerator. For this and subsequent editions, problem rates have been "flagged" in the tables with an asterisk. The procedures used to determine which rates to flag are described in detail in Section II. Also, a new procedure used to depict geographic clustering of counties is discussed here.

In Sections III-X, maps and tabular data describe North Carolina's recent experience with respect to population and selected health care resources, general mortality, cause-specific mortality (underlying causes), infant mortality, and multiple conditions present at death. Although the 1976 edition of this volume reported that some 3-year rates may have substantial random fluctuations, changes in coding of death certificates in 1979 necessitate the use of these rather than 5-year rates. The 1982 edition of Leading Causes of Mortality will show 4-year rates, and the 1983 and subsequent editions will again show 5-year rates.

Table 1 on page 1-8 describes the selected cause-of-death categories in terms of codes from the ninth revision of the International Classification of Diseases (3). Altogether, the causes selected for examination in this report accounted for 87 percent of all North Carolina deaths during 1981.

Description Of Maps

This volume contains 81 computer-produced maps which depict data for the state's 100 counties. The maps on pages v and vi identify the four regions of the Department of Human Resources (DHR) and the state's six Health Service Areas (HSA's).

In Section III, five maps portray each county's relative status among the 100 counties with respect to population per primary care physician; population per primary care physician, physician assistant, and nurse practitioner; population per registered nurse; population per short-term general hospital bed; and population 75+ per skilled nursing and intermediate care beds. These data together with information concerning county populations and county mortality levels should aid in the determination of areas most in need of increased health resources.

In Sections IV-X, the maps depicting geographical patterns in mortality should aid in the resolution of specific types of health promotion and health care needs. Two to four maps are generally shown for each cause-of-death category. Two maps depict the 1979-81 unadjusted death rate and the 1979-81 age-race-sex-adjusted death rate for each of the 100 counties. These two maps show six levels of death rates, where level one is the lowest rate interval and level six the highest. These maps should be viewed with extreme caution for causes where the number of deaths per county is small, since in these cases the rates may be very unstable. Users of the maps should note that the interval values indicated by the map legends are not necessarily continuous but reflect the actual range of values for each interval.

A clustering routine from the Statistical Analysis System (SAS) was used to group counties that are "most like each other" with respect to their unadjusted rate and then their adjusted rate (4). This procedure may result in very large or very small groups depending upon how counties differ from one another. The other two maps for a particular cause may depict "spatial" clustering of two or more adjacent counties with high unadjusted and/or adjusted rates using a new procedure described in Section II. These maps are presented for a given cause only when a statistically significant spatial cluster is found to exist. Unlike the two full-page maps, these maps are presented in reduced form as part of the narrative and show one to three interval levels of death rates, depending on the number of significant spatial clusters found, along with the significance level (i.e., p-value).

Description Of Tables

Sections IV-X contain tables that summarize the recent mortality experience of counties, six Health Service Areas, four Department of Human Resources regions, and the state. Except in the case of infant deaths (Section IX), a table corresponding to each cause-of-death category includes the following items of information:

(1) the number of resident deaths occurring during 1981;
(2) the 1981 death rate;
(3) the number of resident deaths occurring during 1979-81;
(4) the 1979-81 average annual death rate;
(5) the 1979-81 average annual age-race-sex-adjusted death rate computed by the direct method (5).

The formulas for calculating single- and multi-year rates are found in Section II. In this report, general mortality rates (all causes combined) are expressed as deaths per 1,000 population while cause-specific rates are expressed as deaths per 100,000 population. The infant death rates of Table 28, Section IX, are computed as the number of infant deaths per 1,000 live births.

Multiple Conditions Present At Death

Since 1975, multiple conditions present at death have been coded such that statistics are available for all conditions present at death as reported by the certifier. Three diseases in particular--hypertension, atherosclerosis, and diabetes--are considered associated conditions far more often than they are considered an underlying cause; hence, no maps are displayed in Sections V and VII showing these deaths as an underlying cause. For the geographic clustering routine maps, only the 1979-81 age-race-sex-adjusted county rates for these conditions are displayed in Section X. Two of the three clustering maps displaying unadjusted rates showed patterns similar to those for adjusted rates, and thus are not presented, while the third (atherosclerosis) was not statistically significant.

Tables in Section X show deaths crosstabulated by underlying cause and associated mentioned conditions, death frequencies for selected pairs of mentioned conditions, and death rates based on mentioned conditions rather than underlying cause. Rates are deaths with the condition mentioned per 100,000 population.

TABLE 1

Mortality Statistics for 1981 and 1979-81

North Carolina Residents

Cause of Death - Ninth Revision International Classification of Diseases	Number of Deaths 1981	Death Rate* 1981	Death Rate* 1979-81
All Causes	49,212	8.25	8.16
Diseases of Heart (390-398,402,404-429)	18,270	306.51	300.98
Acute Myocardial Infarction (410)	8,091	135.74	136.81
Other Forms of Ischemic Heart Disease (411-414)	5,036	84.48	82.07
Hypertension with or without Renal Disease (401-403)	240	4.02	4.03
Cerebrovascular Disease (430-438)	4,717	79.13	80.15
Atherosclerosis (440)	580	9.73	9.76
Cancer (140-208)	9,899	166.07	162.38
Stomach (151)	278	4.66	4.80
Colon, Rectum and Anus (153,154)	1,051	17.63	17.65
Pancreas (157)	575	9.64	8.86
Trachea, Bronchus, and Lung (162)	2,564	43.01	40.54
Female Breast (174)	798	26.01	25.60
Cervix Uteri (180)	160	5.21	4.92
Ovary and other Uterine Adnexa (183)	232	7.56	7.64
Prostate (185)	660	22.81	21.57
Leukemia (204-208)	394	6.61	6.56
Diabetes Mellitis (250)	798	13.38	13.93
Pneumonia and Influenza (480-487)	1,418	23.78	21.10
Chronic Obstructive Pulmonary Disease and Allied Conditions (490-496)	1,299	21.79	20.41
Chronic Liver Disease and Cirrhosis (571)	653	10.95	11.76
Nephritis, Nephrotic Syndrome, & Nephrosis (580-589)	510	8.55	8.11
Motor Vehicle Accidents (810-825)	1,525	25.58	26.21
All Other Accidents and Adverse Effects (800-807, 826-949)	1,470	24.66	25.88
Suicide (950-959)	766	12.85	12.03
Homicide (960-978)	626	10.50	11.10

*See Section II

OVERVIEW OF MORTALITY IN NORTH CAROLINA

Mortality in North Carolina has exhibited a general downward trend in this century. Numerous factors have contributed to this decline including changes in lifestyles, environment, age-race-sex distribution, risk factors, and the medical care system. In Sections IV through X of this report, these factors and others are considered in discussing each cause of death. This overview examines four general determinants of mortality, highlights some of the major mortality findings, and describes some of the risk factors which impact on a number of different causes. Further, this section looks at premature mortality in North Carolina using a concept called "years of life lost" which emphasizes mortality in the younger age groups (6).

Determinants of Mortality

A broad view of mortality determinants recognizes that medical care is only one aspect of health maintenance and that many health problems "arise from causes embedded in the social fabric of the nation as a whole" (7). Accordingly, environment, lifestyle, biology, and medical care must all be considered as determinants of health.

The natural and manmade physical environments are commonly recognized as having an important impact on health. For example, water mineral content and elevation have been cited as influencing the incidence of cardiovascular disease (8). Of particular concern recently have been the health consequences of manmade environmental pollution. The proliferation of various chemical compounds is a central element of a high-technology, growth-oriented society. Ill health due to environmental pollution therefore can result from the economic environment. Stricter governmental controls may be required in this area for those businesses that will not voluntarily weigh social costs into their economic calculations.

Yet economic growth bears on health in ways other than the negative externalities of environmental pollution. Economic growth means jobs and income, both of which are central to individual and family well-being. Unemployment, economic poverty, and their social concomitants are inimical to mental and physical health. The poor, controlling a lesser share of economic and social resources, are subject to greater physical vulnerability to infectious agents, more economic uncertainty and associated stress, and more hazardous environments in homes and workplaces. They have fewer cushioning devices such as vacation or travel (9). Thus controlled growth can have substantial health benefits if it is broadly based and environmentally sound.

Lifestyle refers to those decisions by individuals that affect their health and over which they have some control. The degree of individual control over one's own decisions is a key question to answer in an evaluation of changing lifestyles as a health improvement strategy. Individuals' decisions are conditioned to a large extent by their position in the economic and social hierarchy. Self-destructive and violent behavior, for example, may reflect alienation due to a marginal position in the society. But policies to educate individuals about their health are much less complex and easier to sell politically than those aimed at modifying basic social and economic determinants of lifestyle and health. "Blaming the victim" by keeping the problem at the individual level may obscure the origins of disease in the socioeconomic environment.

This is not meant to suggest that health education does not have its place. Certain population groups are more likely to engage in lifestyles that increase mortality, and education programs that target these groups are an essential, though short-run, complement to policies oriented toward the environmental factors that condition lifestyle. Education about nutrition is likely to have a high health payoff among the poor and less educated, but only if they have enough money to buy proper food and the facilities to properly prepare it.

A 1977 Rhode Island telephone survey indicated that the 30-39 year age group could be targeted as high-risk, based on health perception, weight, smoking, drinking, sleep habits, and stress. Education efforts aimed at relieving stress, which is much less publicized than other lifestyle factors and may affect smoking, drinking, and other behaviors, may be more productive. As shown in a recent North Carolina study (10), income, education, and urban or rural residence may be important indicators and determinants of lifestyle, and successful education programs must consider variation along such dimensions. Targeting specific groups is likely to be more successful than generalized education or media campaigns.

Biological factors are very pervasive determinants of mortality. The age, race, and sex of an individual are biologically determined and mortality rates vary consistently along these dimensions. Health is strongly tied to aging and the life cycle, some diseases that vary by race are thought to be genetically linked, and biological factors account in part for males and females having a different incidence of many diseases, with females living longer on the average. Some health consequences of age, race, and sex are, however, not biological in origin. Social stratification is in large part based on age, race, and sex differences, with the old, the nonwhite, and the female generally being lower on the social and economic hierarchy. Male mortality is higher partially as a result of aggressive, achievement-oriented behavior that accompanies higher status positions (11), while higher nonwhite mortality is due in part to a lower position in the economic hierarchy (12).

Many causes of disease are biological in origin. In North Carolina an estimated 150,000 persons are suffering from serious genetic disorders as evidenced by physical defects, mental retardation, and other health problems (13). Forty percent of all children admitted to inpatient pediatric care are there because of genetic disorders (13). About one-half of all visual impairment difficulties are caused by genetic factors. Birth defects, of which about 80 percent are thought to be genetic in origin, are a leading cause of infant mortality. Some persons have a greater biological susceptibility to disease. Cancer, for example, may result from problems of the immunological system, in combination with the presence of external agents.

Many parts of the medical care system function by reacting to health problems caused elsewhere, though in attempting to restore individuals to a full and productive life, this system becomes an important determinant of mortality levels. Disease prevention is also within the purview of the medical care system, as through innoculation against infectious diseases or patient education concerning the negative health consequences of certain lifestyles. Medical care personnel may also be involved in attacking certain environmental and biological causes of disease, though this type of activity has traditionally been carried out in the government or public sector.

McKeown and Brown (14) present evidence suggesting that medical practice in the first half of the 19th century had very little to do with the large decline in mortality that took place in Western societies, but rather that transportation improvements, changes in the economic system that assured a more continuous and nutritious food supply, and improved sanitation practices urged on by reformers in the cities were responsible. After the practice of antisepsis became widespread late in the 19th century, medical care became a much more positive factor in reducing mortality. During the first half of this century, the health and average life span of Americans improved considerably, due substantially to efforts in the medical sector to reduce infections and acute nutritional diseases. Major gains were observed in infant and maternal mortality.

Medical care, however, may sometimes have negative health consequences. It has been estimated that infections acquired inside the hospital strike 1.5 million of the 33 million Americans hospitalized each year, adding to hospital costs by increasing lengths of stay and causing an additional 15,000 patient deaths (15). Inappropriate or unnecessary treatment may also increase mortality as well as health care costs. Risks, however, are always present even in proper medical treatment, and in most cases they are far outweighed by the potential benefits.

In summary, a complete program to improve health status and reduce mortality must include environmental, lifestyle, biological, and medical care strategies. Too much emphasis in one area may, however, involve substantial opportunity costs due to neglect of other areas. For example, expenditures for genetic research, for environmental protection, or to improve substandard housing and below-poverty-level incomes could potentially have higher long run health payoffs than would the same amount expended just for medical care. The rise of heart disease and cancer as major killers is closely linked to changes in the economic environment, and medical treatment or attempts to modify individual behaviors are not by themselves likely to control these diseases. Sedentary occupations, increasing incomes and therefore food consumption (particularly of foods high in animal fat), and drinking and smoking associated with stresses placed on the family and other primary support institutions in a highly mobile society all underlie the rise in heart disease. The spiral of post-WWII economic production and increasing use of automobiles have led to more and more carcinogens in the air, water, and food. Cancer control is such a difficult policy area precisely because cancer prevention will require fundamental changes in the physical and therefore economic environment. Policies aimed at improving the medical treatment of cancer victims are probably easier to implement, but they do not deal with the basic problem. Successful strategies to deal with these and other leading causes of mortality must modify the basic causes of our modern ills.

Risk Factors

Risk factors particular to each cause of death are discussed in separate sections of this volume, but there are some factors common to a number of different causes of death and these factors are summarized here.

Two of the most pervasive factors contributing to U.S. mortality from various causes are high blood pressure and cigarette smoking. Higher levels of blood pressure have been shown to be associated with death from all cardiovascular diseases, diabetes mellitus, and cirrhosis of the liver (17,18). Most cases of high blood pressure are amendable to treatment; however many people either are not aware that they have high blood pressure or will not maintain the proper weight, diet, and medication regimen to control it.

Cigarette smoking contributes to death from a large number of causes (17-22). A recent report by the U.S. Surgeon General (22) concludes that smoking is a major cause of lung cancer and of cancers of the larynx, oral cavity, and esophagus; that it is a contributory factor in the development of cancers of the bladder, pancreas, and kidney; and that approximately 30 percent of all cancer deaths are attributable to cigarette smoking. It has also been reported as a contributor in the development of chronic bronchitis and emphysema, pulmonary heart disease, myocardial infarction, aortic aneursym, and a wide variety of other vascular diseases. Smoking has important interactions with other factors. "It is now clear that smoking may act synergistically with ionizing radiation or asbestos to produce cancer of the upper respiratory and digestive tracts, with oral contraceptives to produce myocardial infarction, and probably with several dietary factors to produce both cancer and vascular disease". It may be that the low tar, low nicotine cigarette is less liable to cause lung cancer and chronic bronchitis, but no less liable to produce vascular disease because of its carbon monoxide content. A substantial reduction in smoking-related disease and death is likely to come about only if a substantial number of smokers quit smoking. (19)

Diet also has an important impact on certain causes of mortality. Overeating may lead to obesity, which contributes to high blood pressure, diabetes, and cardiovascular disease. Diabetes is itself a risk factor for stroke and other cardiovascular diseases. In addition, the content of our modern diet has important consequences for mortality. "Compared with our ancestors' diet, that consumed by present-day western populations is higher in intake of energy, of protein (especially animal protein), and of fat (especially animal fat), but lower in intake of fibre-containing cereal foods; this diet is associated with high rates of morbidity and mortality from degenerative diseases" (23). In particular, decreased intake of animal fat and protein, cholesterol, salt, sugar, and alcohol is recommended. Eyer (18) suggests, however, that reduction of animal fat in the diet may just redistribute cardiovascular deaths from coronary heart disease to stroke, and that reducing the total level of cardiovascular disease depends on reducing smoking and high blood pressure.

Heavy alcohol consumption carries a risk of premature death greatly exceeding normal expectancy (24,25). "While the lifestyle typical of many heavy drinkers contributes to this risk, the effects of alcohol per se account for a substantial part of the excess mortality" (24). In two Chicago studies, heavy drinkers had higher mortality from all causes, cardiovascular diseases, coronary heart disease, and sudden death, than could be entirely explained by their blood pressure, smoking, and weight (25). The mortality experience of moderate drinkers, however, does not seem to differ notably from that of lifelong abstainers (24).

Mental disease may also increase mortality risk. One study (26) found that schizophrenic, manic, and depressive patients had a significant increase in mortality risk over that experienced by the general population of which the study group was a part. Mortality of a control group did not differ significantly from that of the general population. Better diagnosis and treatment of persons with mental diseases could help reduce the level of mortality.

Social class has a very strong impact on mortality (12,20,27). "Social class gradients of mortality and life expectancy have been observed for centuries, and a vast body of evidence has shown consistently that those in the lower classes have higher mortality, morbidity, and disability rates" (12). The higher morbidity rates in lower status groups is an important observation since it indicates that their excess mortality is not merely attributable to a higher case fatality rate but is accompanied also by a higher prevalence of morbidity. Differences between white and nonwhite mortality rates can be attributed largely to social class differences. Persons in lower socioeconomic groups live in a more toxic, hazardous, and non-hygienic environment resulting in a broad array of disease consequences. Low education contributes to poor health practices and low income affects many aspects of health, including proper nutrition. Higher stress levels and differences in coping with stress also contribute to higher mortality among the poor (9, 12). Lower class persons generally receive less adequate medical care, though this probably does not account for a major portion of the social class differences in morbidity and mortality (12). Syme and Berkman (12) conclude that to reduce excess mortality among the poor ". . . . .new approaches must be explored emphasizing the primary prevention of disease in addition to those approaches that merely focus on treatment of the sick. It is clear also that such preventive approaches must involve community and environmental interventions rather than one-on-one preventive encounters."

The male sex is another important factor associated with higher mortality. Males have higher mortality than females beginning at conception and this differential continues for every age group. A high ratio of males to females at conception declines to about 104:100 at birth until by age 70 females outnumber males approximately 3:2. In the United States, the male age-adjusted death rate is about 50 percent higher than that for females (28). Diabetes is the only major killer for which higher death rates are reported for women than men, a result due entirely to higher female rates at older ages. While there is a significant biological component contributing to higher male mortality (29), and in particular female hormones may lower the risk of coronary heart disease, Waldron (11) and others (12) have concluded that sex differences in behavior are a more important cause of higher male mortality than are inherent sex differences in physiology. "Each of the factors which we have identified as a major contributor to men's excess mortality involves a behavior which is more socially acceptable for males than for females, for example, aggressive competitiveness, working at physically hazardous jobs, drinking alcohol and, especially in the early part of the century, smoking cigarettes. The sex differential in smoking and alcohol consumption seems also to be linked to underlying attitudes, such as rebelliousness and achievement striving, which are fostered to a greater extent in males" (11). Waldron estimates that one-third of the difference between male and female death rates may be due to men's higher cigarette smoking, with the major contribution via increased coronary heart disese, lung cancer, and emphysema.

If in fact much of the sex difference in mortality is not due to biological factors, then substantial reductions in men's excess mortality can be achieved by cultural and behavorial changes. Social and lifestyle changes may also help to reduce female mortality. With the transition earlier in this century from infectious to degenerative diseases as the major causes of death, lifestyle became more important in affecting mortality experience, and the difference between male and female mortality rates increased steadily. In the 1970's, however, this increase slowed and female mortality relative to male mortality actually worsened for several age groups and for several leading causes (30). This may be associated with increased smoking (19) and the adoption of other "male" behaviors by women as job participation and mobility increase and traditional roles are modified.

A number of risk factors have been reviewed that bear on many causes of death, and efforts to reduce excess mortality must involve consideration of these important precursors.

North Carolina Mortality Highlights

- Life expectancy at birth has continued to increase reaching 70.0 years for white males, 78.5 years for white females, 63.6 for nonwhite males, and 73.4 for nonwhite females in 1980. However, since 1960 life expectancy at birth has increased by about 3 years for white males and females, 4 years for nonwhite males, and 7 years for nonwhite females. Overall, the median age at death in 1981 was 70.4 years, up from 66.4 in 1970 and 28.1 in 1914 when N.C. deaths were first centrally recorded.
- A total of 49,212 North Carolinians died in 1981. By race and sex, the deaths per 1000 population were slightly higher for nonwhites than whites (by 4%), but significantly higher for males than females (by 34%).
- Infant mortality declined in the past 10 years reaching 13.2 deaths per 1000 live births in 1981, from 24.1 in 1970. But despite this dramatic improvement, North Carolina's rate continues to rank among the highest in the nation; only 7 states had a higher rate in 1981.
- Age-adjusted mortality rates show wide gaps in the overall risk of mortality for North Carolina males versus females and nonwhites versus whites. In the 1979-81 period, the male rate for both races was nearly double the female rate, and the nonwhite rate for both sexes remained more than 40 percent above the white rate.
- Comparison of the 1981 N.C. age-race-sex-specific mortality rates with provisional rates for the U.S. during 1981 reveals the following excesses in North Carolina:

  White males: Ages 55-64 (15% above U.S. rate)

  White females: Ages 5-14 (23% above U.S. rate)

Nonwhite males: Ages 35-44 (31%), 45-54 (30%), 55-64 (18%),
65-74 (10%), 75-84 (14%)

Nonwhite females: Ages 0-4 (10%), 45-54 (14%)

- Even after adjusting for age, race, and sex the eastern counties, especially the northeastern counties, seem to have consistently higher mortality rates. Based on adjusted rates, statistically significant spatial clusters exist in eastern North Carolina for total mortality, heart disease, stroke, motor vehicle accidents, infant mortality, total cancer, lung cancer, and cancer of the colon, rectum, and anus.
- The highest overall age-adjusted mortality rate for nonwhites is in the Southern Piedmont HSA while the highest age-adjusted rate for whites is in the Cardinal and Eastern HSAs. Further, race and sex ratios show that race differences in age-adjusted rates are greater in the western part of the state and sex differences are greater in the east.
- Based on the number of North Carolina deaths, the 10 leading causes in 1981 were (in descending order) heart disease, cancer, cerebrovascular disease, accidents, pneumonia/influenza, chronic obstructive lung disease, diabetes, suicide, chronic liver disease/cirrhosis, and homicide. However, based on the number of years of life lost prematurely for each cause, the 10 leading causes were heart disease, cancer, accidents, suicide, homicide, cerebrovascular disease, chronic liver disease/cirrhosis, pneumonia/influenza, chronic obstructive lung disease, and diabetes.
- Although age-adjusted homicide rates have declined for each race-sex group, this rate remains substantially higher for nonwhite males.

In 1981 about 40 percent of all homicide victims were nonwhite males; yet nonwhite males represented less than 12 percent of the total population.

- Nonwhite males have a greater risk of death from motor vehicle accidents at every age interval except the 15-24 age group where white males have the highest rate.
- Comparing the U.S. and N.C. unadjusted rates, mortality conditions in N.C. do not appear to be greater except in the case of cerebrovascular disease, nephritis/nephrosis, and accidents. However, adjusting for the state's more youthful age structure, mortality conditions in N.C. appear much less favorable with only a slight advantage in the case of cancer, chronic obstructive lung disease, and chronic liver disease/cirrhosis. Based on 1979 age-adjusted rates, even those advantages appear limited to females, with N.C. males of both races experiencing above-average risk in nearly every cause category.
- Cancer mortality appears to be rising faster in N.C. than in the U.S. In the last two years, the state's age-adjusted cancer death rate has risen about 2.5% (vs. 0.9% nationwide) with notable increases for cancer of the pancreas (19%) and cancer of the cervix uteri (26%).
- The former downward trend for cervical cancer appears to have stalled in recent years. Based on age-specific number of deaths from cervical cancer, there has been considerable random fluctuation with a sharp nonwhite drop in 1979 involving all age groups. Only for white women 55-64 has any consistent pattern of increase recently occurred.

- Both the state and the U.S. have recently experienced increases in pneumonia/influenza and chronic obstructive lung disease death rates. N.C.'s decreases in cardiovascular and accident mortality also reflect national trends, although 1979 to 1981 reductions in the risks of motor vehicle and other accidents were greater in the U.S. than in North Carolina.

1982 PROVISIONAL DATA

- Provisional North Carolina data show that the unadjusted rate for all deaths declined from 825.6 deaths per 100,000 population in 1981 to 807.0 in 1982. Cancer and chronic obstructive pulmonary disease appear to be the only causes with a rate increase in 1982.

Premature Mortality in North Carolina

Since deaths were first centrally recorded in North Carolina, the leading causes of mortality have been ranked primarily according to number of deaths. North Carolina deaths in 1981 have been ranked in Table A for each race-sex group based on this traditional method. As shown, heart disease, cancer, and stroke (cerebrovascular disease) are the leading causes of death for each group, but the rankings of the other causes, as well as the size of the rates for the same cause, vary among the four groups.

Rankings based only on number of deaths, however, do not necessarily indicate where medical and public health intervention strategies can most effectively be employed. Since death is postponable but not preventable, age at death is a very important factor to consider. Prevention of a death that would otherwise occur early in life could be assigned higher priority than prevention of a death later in life. A convenient method of ranking causes of death that incorporates age at death is by "years of life lost" (6). If the average life expectancy at birth for white males, for example, is 70 years, a death at age 65 would mean 5 years of life lost (on the average), while a death at age 40 would mean 30 life-years lost. An infant death results in 70 years of life lost, whereas, deaths at age 70 and over do not contribute to "life-years lost" for white males. Based on 1979-80 life tables for North Carolina (16), the life expectancies used here to calculate years of life lost were 70 for white males, 79 for white females, 64 for nonwhite males, and 73 for nonwhite females. For each death in a given cause group, age at death was subtracted from the appropriate life expectancy and all of these life-years lost were then summed up for that race-sex group, with deaths over the specified ages not counted. A rate of years of life lost per 100,000 population was then calculated for ranking the causes of death, so that comparisons can be made across race-sex groups.

A more accurate method of calculating years of life lost may be to use an average expected remaining years of life for each age of death rather than an average life expectancy at birth. This method was considered too complicated for the present application, and probably would not result in rankings substantially different from those in Table B. It would place somewhat less emphasis on infant mortality since more years of life lost would be generated for the causes listed in Table B.

Table B displays the leading causes of death ranked according to years of life lost per 100,000 population. Heart disease and cancer are still very important causes of death from this perspective, but other causes become much more prominent than before. Motor vehicle accidents account for more years of life lost for nonwhite males than any other cause, and the general seriousness of motor vehicle accidents as a life and health hazard is clearly shown in this table. Cancer becomes a much more important cause of death relative to heart disease from this perspective, since cancer decedents are about ten years younger on the average than are heart disease decedents. In fact, cancer accounts for more years of life lost for white females than any other cause. Infant deaths in 1981, about 8% of which are counted under causes (such as accidents) shown in Table B, accounted for 1322 years of life lost per 100,000 total population (compare column 1 of Table B) and therefore should be a key target for prevention.

Table A

1981 North Carolina Leading Causes of
Mortality Ranked by Size of Death Rate
(Deaths per 100,000 Population)
By Race-Sex Group
(Based on Underlying Cause of Death)

TOTAL		WHITE MALES		WHITE FEMALES		NONWHITE MALES		NONWHITE FEMALES	
Heart Disease	306.5	Heart Disease	366.2	Heart Disease	272.4	Heart Disease	307.9	Heart Disease	236.1
Cancer	166.1	Cancer	192.6	Cancer	145.2	Cancer	198.3	Cancer	123.5
Stroke	79.1	Stroke	61.2	Stroke	88.0	Stroke	91.2	Stroke	93.3
Motor Vehicle Accidents	25.6	Motor Vehicle Accidents	37.6	Pneumonia + Influenza	23.3	Motor Vehicle Accidents	47.6	Diabetes	24.6
Other Accidents	24.7	Chronic Lung Disease	36.0	Other Accidents	14.2	Other Accidents	45.7	Other Accidents	17.0
Pneumonia + Influenza	23.8	Other Accidents	31.7	Chronic Lung Disease	14.1	Homicide	36.2	Pneumonia + Influenza	13.9
Chronic Lung Disease	21.8	Pneumonia + Influenza	24.9	Diabetes	12.4	Pneumonia + Influenza	32.7	Nephritis, etc.	12.5
Diabetes	13.4	Suicide	23.1	Motor Vehicle Accidents	12.4	Chronic Lung Disease	19.7	Motor Vehicle Accidents	10.6
Suicide	12.9	Chronic Liver Disease	14.4	Atherosclerosis	11.9	Chronic Liver Disease	16.1	Atherosclerosis	10.5
Chronic Liver Disease	11.0	Diabetes	10.4	Suicide	7.5	Nephritis, etc.	15.1	Chronic Liver Disease	10.0
Homicide	10.5	Homicide	10.3	Chronic Liver Disease	6.5	Diabetes	13.9	Homicide	9.6
Atherosclerosis	9.7	Atherosclerosis	8.0	Nephritis, etc.	6.3	Suicide	9.4	Hypertension	6.8
Nephritis, etc.	8.6	Nephritis, etc.	7.5	Homicide	3.3	Hypertension	7.5	Chronic Lung Disease	6.0
Hypertension	4.0	Hypertension	3.0	Hypertension	3.1	Atheroslerosis	7.1	Suicide	2.5

Table B

1981 North Carolina Leading Causes of
Mortality Ranked by Years of Life
Lost per 100,000 Population
By Race-Sex Group
(Based on Underlying Cause of Death)

TOTAL		WHITE MALES		WHITE FEMALES		NONWHITE MALES		NONWHITE FEMALES	
Heart Disease	1682	Heart Disease	2001	Cancer	1982	Motor Vehicle Accidents	1419	Heart Disease	1474
Cancer	1534	Motor Vehicle Accidents	1437	Heart Disease	1532	Heart Disease	1394	Cancer	1304
Motor Vehicle Accidents	961	Cancer	1347	Motor Vehicle Accidents	557	Other Accidents	1066	Stroke	524
Other Accidents	563	Other Accidents	773	Stroke	345	Homicide	1008	Other Accidents	428
Suicide	359	Suicide	597	Suicide	262	Cancer	879	Motor Vehicle Accidents	391
Homicide	341	Homicide	349	Other Accidents	256	Stroke	384	Homicide	369
Stroke	309	Chronic Liver Disease	189	Chronic Lung Disease	145	Pneumonia + Influenza	256	Chronic Liver Disease	248
Chronic Liver Disease	176	Stroke	173	Chronic Liver Disease	133	Suicide	215	Diabetes	190
Pneumonia + Influenza	131	Chronic Lung Disease	119	Homicide	124	Chronic Liver Disease	203	Pneumonia + Influenza	119
Chronic Lung Disease	118	Pneumonia + Influenza	108	Pneumonia + Influenza	120	Nephritis, etc.	89	Suicide	97
Diabetes	102	Diabetes	74	Diabetes	107	Chronic Lung Disease	84	Nephritis, etc.	73
Nephritis, etc.	58	Nephritis, etc.	45	Nephritis, etc.	57	Diabetes	75	Chronic Lung Disease	64
Hypertension	20	Atherosclerosis	12	Hypertension	15	Hypertension	31	Hypertension	52
Atherosclerosis	11	Hypertension	11	Atherosclerosis	11	Atherosclerosis	6	Atherosclerosis	15

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II. Technical Notes

CHANGES IN THE CAUSE-OF-DEATH CLASSIFICATION SYSTEM

About every 10 years since 1900, what is now the International Classification of Diseases (ICD) has been revised in order to incorporate the latest state-of-the-art in disease classification. Each revision produces some break in the comparability of cause-of-death statistics, and the Ninth Revision--first applied to 1979 deaths--is no exception. The most serious breaks in comparability occurred with the following causes: pneumonia/influenza, chronic obstructive pulmonary disease, hypertension, atherosclerosis, other ischemic heart disease, and nephritis/nephrosis.

In order to interpret mortality trends, the National Center for Health Statistics provided national estimates of the discontinuity associated with the change from the 8th to the 9th ICD, commonly referred to as "comparability ratios." These ratios for selected causes of death are found in the 1979 Leading Causes of Mortality. Also in the 1979 volume are a description of the method used to construct comparability ratios and an evaluation of these ratios using North Carolina data.

Throughout this volume, comparability ratios are applied to pre-1979 rates for each cause listed above in order to make comparisons with 1979-81 rates. Yet, because these ratios are national estimates and are based on 1976 deaths, the reader is cautioned that the magnitude of the error associated with the corrected pre-1979 rates is unknown. Thus, for some causes and/or counties any revised pre-1979 rate could be significantly different from the "true" rate, thereby causing substantial changes in the trend of rates over time.

CHANGES IN POPULATION BASES DUE TO THE 1980 CENSUS

As described in the previous section, the change in the disease classification system from 1978 to 1979 was one source of discontinuity in mortality rates over time. A second source was a change in population estimates.

Every ten years (years ending in zero) the United States Bureau of the Census has conducted a count of the United States population, which includes a profile of the population's characteristics such as age, race, and sex. After a census year, estimates of population size and composition are based on knowledge of the population in the census year plus subsequent events such as births, deaths, and migration. In the later years of a decade, these estimates may depart considerably from the "true" population values if the assumptions about population change differ significantly from what actually occurred. Since almost all mortality rates in SCHS publications are based on population counts in the denominator, changes in estimates of population such as might result from a new census could cause substantial changes in the trend of rates over time.

To complicate the problem even further, it is generally acknowledged that there was an undercount of the population of North Carolina in the 1970 census, particularly among nonwhites. Thus projections for the latter seventies tended to be low, and rates based on these population projections were correspondingly high. The 1980 Leading Causes of Mortality provided a detailed assessment of the effects of using the 1980 census figures versus 1980 population projections as the denominators of rates.

In this volume the reader should note that all pre-1980 rates have been corrected for changes in population bases in order to interpret trends. These corrected rates may differ from the rates shown in previous SCHS publications.

MORTALITY RATES

Computation of Mortality Rates

In this report, total death rates are expressed as resident deaths per 1,000 population while all cause-specific mortality rates are expressed as resident deaths per 100,000 population. All rates in Tables 1-27 use total population in the denominator, except rates for the sex-specific cancer sites, which use male or female population in the denominator. The infant mortality rates of Table 28 and Figure 28 are computed as the number of resident deaths under one year of age per 1,000 resident live births. Population bases for the rates of this report were provided by the Office of State Budget and Management in the Governor's Office.

Vital events in this report are allocated to place of residence. For deaths of inmates of long-term institutions (mental, penal, old age, orphan, nursing home, rest home, etc.), the institution is considered the usual residence provided the decedent had resided in the institution at least one year. College students and military personnel are considered residents of the college or military community.

The following definitions apply to the rates of Tables 1-27:

Unadjusted Annual Death Rate: the annual death rate computed as resident deaths per 1,000 or 100,000 population. These rates permit the user knowledge of an area's status with respect to the observed incidence of mortality during the given year.

Unadjusted 3-Year Death Rate: the average annual death rate computed as average resident deaths per 1,000 or 100,000 average population. These rates permit the user knowledge of an area's status with respect to the observed incidence of mortality during the 3-year period. These rates are depicted in the Series A maps (e.g., Figures 2.A, 3.A, etc.).

Adjusted 3-Year Death Rate: the average annual age-race-sex-adjusted rate, computed by the direct method. Also expressed as deaths per 1,000 or 100,000 population, these rates are those which would be expected if the average annual age, race, and sex composition of each county's population were the same as that estimated for the state. These rates are free of differing effects of age, race, and sex and thus permit the user knowledge of an area's status with respect to other determinants of mortality during the 3-year period. However, the user should be cautious when comparing an adjusted death rate with an unadjusted death rate. Also, adjusted rates for different time periods cannot be directly compared unless they were adjusted by the same standard population. The adjusted rates are depicted in the Series B maps (e.g., Figures 2.B, 3.B, etc.). These adjusted rates are based on a breakout of ten age groups for four race-sex groups, for a total of 40 age-race-sex "cells." In 1978 and earlier editions of Leading Causes of Mortality, adjusted rates were based on 18 age categories (72 cells), and the change here to a smaller number of age categories is in keeping with the procedures of the National Center for Health Statistics.

Interpretation of Mortality Rates

To assess an area's relative mortality conditions during a three-year period, both the unadjusted rate and the adjusted rate can be compared to the state rate for a particular cause of death. Then, provided the area's unadjusted rate represents a relatively stable situation, viz., the rate has not fluctuated widely in recent years, the following alternative diagnoses will apply:

Relative Status of Unadjusted Rate	Adjusted Rate	Diagnosis
Low	Low	Low mortality is not due to age, race, and sex factors; other mortality conditions are favorable.
Low	High	Low mortality is due to favorable age, race, and sex factors; other mortality conditions are unfavorable.

High	Low	High mortality is due to unfavorable age, race, and sex factors; other mortality conditions are favorable.
High	High	High mortality is not due to age, race, and sex factors; other mortality conditions are unfavorable.

In using adjusted rates, it is important that the user understand the reason for adjustment. The following hypothetical example illustrates. Here, A & B stand for population subgroups, e.g., whites and nonwhites, males and females, etc.

	County			State		
	Population	Deaths	Death Rate*	Population	Deaths	Death Rate*
Population A	300,000	1,000	333.3	500,000	2,500	500.0
Population B	10,000	10	100.0	800,000	1,000	125.0
Total	310,000	1,010	325.8	1,300,000	3,500	269.2

*Deaths per 100,000 population.

Compared to the state, county subgroups A & B both have lower rates, but the county as a whole (A & B combined) has a higher rate. This seemingly paradoxical situation results from two factors: different proportions of A & B in the county vs. the state population and wide differences between the rates for A vs. B. In this example, it is true that the county has the higher total rate--BUT ONLY BECAUSE THE POPULATION CONTAINS A HIGH PROPORTION OF SUBGROUP A.

Certainly, it is important for program planners to know that the county has a high rate relative to the state rate; this information is needed in determining manpower and facility needs, etc. But in assessing "risk," the researcher needs to adjust for confounding factors such as age or race. To do this, one multiplies each population-specific county rate by the corresponding "standard" population, sums these results, and divides by the total "standard." In the above example, using the state population as the standard, the computation is:

$$\frac{\left(\frac{1000}{300,000} \times 500,000\right) + \left(\frac{10}{10,000} \times 800,000\right)}{1,300,000} = 0.001897 \text{ or } 189.7 \text{ per } 100,000 \text{ population}$$

Thus, as rates specific for A & B imply, the county's rate is lower than the state rate after adjustment for the factor represented by A & B.

Caution!

In assessing the relative mortality conditions of a county, one should be particularly aware of rates based on a small number of deaths since, in such cases, random fluctuation in the rate may render rate comparisons risky. The reader should read very carefully the next section entitled Flagging Biased Rates.

Flagging Biased Rates

This section discusses the problem of unstable mortality rates and then goes on to describe a method of flagging rates with a large bias in a given year. The reason for flagging an unstable or possibly biased rate is to provide the reader with a criterion for placing confidence in statements, tables, maps, and other interpretive displays of the mortality data. Not all calculated rates are an accurate portrayal of the underlying or "true" force of mortality, and the intent of this section is to caution the reader against uncritically using the rates in this volume. In the maps in particular, the reader should be alert to unusually high rates that may result from very small numerators or from the type of bias described below.

Any rate with a small number of events in the numerator will be unstable, with possibly large random fluctuations from year to year that do not comprise a significant trend. Such a rate is said to have a large standard error. A useful rule is that any rate based on fewer than 20 events (deaths in this volume) in the numerator may have a 95 percent confidence interval that is wider than the rate itself (1). For example, in an area with 20 deaths out of 20,000 population, the measured rate would be 100 deaths per 100,000 population. But due to variability over time in rates with small numerators, one could say with 95 percent certainty only that the underlying or "true" rate is between approximately 50 and 150 per 100,000. Many of the rates in this volume have numerators smaller than 20 and thus a large standard error, and therefore conclusions about trends based on these rates should be made very cautiously, or not at all.

The age-race-sex-adjusted rates in this volume, described in the previous section, are likewise subject to random variability over time, and those rates involving a small number of deaths will be the most unstable. Computation of a standard error for these rates is more complex than for the unadjusted rates, and depends on the sizes of both the numerators and denominators in each of the age-race-sex-specific cells. Counties with a small number of persons in one or more of the 40 age-race-sex groups are, however, most likely to have adjusted rates with a large standard error, and the rates will therefore show substantial random fluctuation over time. Table C lists 13 counties whose adjusted rates are likely to have a large standard error due to 10 or fewer persons in one or more of the age-race-sex groups in 1980. All of these counties had less than 1000 nonwhites in 1980 and it is generally the nonwhite, age 85-and-over race-age group that has the small number of persons. The adjusted rates in these counties in particular may change substantially from one year to the next just due to random error.

TABLE C
Counties with Small Age-Race-Sex Population Groups that are likely to have Adjusted Death Rates with Large Standard Errors

Alleghany
Ashe
Avery
Cherokee
Clay
Dare
Graham
Haywood
Macon
Madison
Mitchell
Watauga
Yancey

In addition to the problem of potential random variation in rates due to a large standard error, there is the problem of bias in an adjusted rate in a given year due to one or more deaths in a small population group. For example, it has happened that one death occurs in an age-race-sex group where the estimated population is only one person, and this results in a rate of 100,000 deaths per 100,000 population. Of course this is not the "true" rate in that population group, and the "expected" number of deaths per year is much less than one, but such an occurrence can result in an extremely biased adjusted rate. Applying the rate of 100,000 to the appropriate age-race-sex cell of the standard population, by the direct method of adjustment, will result in an expectation of 100 percent of that group dying and thus a very large adjusted rate. In the past no systematic method existed for "flagging" these biased rates in Leading Causes of Mortality.

For the first time in this volume, rates with a possibly large bias of this sort are flagged with an asterisk. Rates with a large standard error have not yet been flagged, though counties likely to have such rates are identified in Table C. Factors considered in flagging the 1979-81 age-race-sex-adjusted rates were: 1) the ratio of the number of expected deaths, in any one of the 40 age-race-sex cells of the standard population to the total expected deaths and 2) the size of the denominator of the cell-specific rates. If applying the cell-specific rates of a county to the standard population results in more than 25 percent of the total expected deaths being generated by one cell, then that adjusted rate is flagged if the denominator of the rate is also less than 30 (or an average of 10 per year). These criteria result in only 23 out of a total of 2500 county rates in this volume, or about one percent, being flagged.

The 25 percent criterion for one cell was higher than what would be expected for any of the causes. In fact, this could probably be reduced somewhat. For 1980 North Carolina total deaths, the highest percent of deaths accounted for by any one of the 40 age-race-sex cells was 9.7 by white females age 75-84. Nonwhite males age 25-34 accounted for 17.5 percent of all 1980 homicide deaths. The cut-off of fewer than 30 persons in the denominator (an average of 10 per year for 3 years) was a somewhat arbitrary choice, but a population limit was desirable in order to reduce the chances of flagging an adjusted rate where a high age-race-sex-specific cell rate was due to an actual epidemic or disaster. Thus one death in the problem cell of a flagged rate would result in a cell-specific rate of at least 1/29, or 3448 out of 100,000. For North Carolina as a whole in 1979-81, only the total heart disease rate for the age 85+ group was higher than this, and most of the age-race-sex-specific rates are very much lower.

We experimented with other combinations of the two criteria, and the numbers of rates flagged for six different combinations are shown below. Doubling the denominator cutoff to 60 and lowering the percentage of expected deaths from 25 to 20 triples the number of flagged rates to 70. While only 23 rates are flagged in this volume, it is felt that most of the flagrant biases have been identified. Work will continue to evaluate and enhance this methodology.

Number of Flagged Rates Based On Denominator Size and Percent of Total Expected Deaths

Denominator Size Less Than	Percent of Total Expected Deaths Accounted for by One Cell Greater Than	
	20%	50%
30	31	23
45	51	38
60	70	51

In addition to putting asterisks by those 1979-81 adjusted rates with a large bias due to an extremely high cell-specific rate, the rates have been recomputed by substituting the appropriate North Carolina age-race-sex-specific rate in the problem cell. Table D compares the flagged rates with the recomputed rates. In a very extreme case, like the Clay County homicide rate, substituting the N.C. age-race-sex-specific rate produces a much more reasonable adjusted rate by reducing the rate from 126.4 to 7.0, the latter being much more in line with the state homicide rate for 1979-81 of 11.1. In a few cases, substituting the state rate makes the county's adjusted rate much smaller than the state figure, which also illustrates the volatility of death rates based on just a few events. The reader who must use one of these flagged rates is advised to use the rate in Table D with the substitution instead, unless this latter rate is clearly out of line with the North Carolina rate in which case the rate should be treated as missing data.

TABLE D

1979 Age-Race-Sex Adjusted Rates: Flagged Rates and Rate after Substitution of State Rate in Problem Cell

County	Cause	Problem Cell	Numerator	Denominator	Flagged Rate	Adjusted Rate with Substitution	N.C. Rate for Cause
Alexander	Atherosclerosis	NWM 85+	1	6	15.24	7.11	9.76
Alleghany	Lung Cancer	NWM 65-74	1	24	53.78	33.14	40.55
Alleghany	Nephritis, etc.	NWF 85+	1	16	13.94	7.62	8.11
Avery	Cancer	NWF 75-84	1	6	147.72	93.60	162.39
Avery	Chronic Liver Dis.	NWM 55-64	1	21	40.64	3.97	11.76
Caldwell	Nephritis, etc.	NWM 85+	1	13	9.77	6.13	8.11
Clay	A. Myocardial Infarction	NWM 75-84	1	3	219.18	152.16	136.81
Clay	Homicide	NWM 35-44	1	9	126.36	6.95	11.10
Graham	Other Ischemic H.D.	NWF 85+	1	3	68.09	35.44	82.07
Graham	Prostate Cancer	NWM 65-74	1	25	49.03	6.70	21.57
Henderson	Prostate Cancer	NWM 85+	1	15	22.95	17.05	21.57
Henderson	Leukemia	NWM 85+	1	15	10.33	7.03	6.57
Hyde	Colon Cancer	WM 85+	1	28	16.13	10.10	17.65
Hyde	Nephritis, etc.	WM 85+	1	28	21.37	15.18	8.11
Macon	Prostate Cancer	NWM 75-84	1	13	40.67	10.61	21.57
Madison	Stroke	NWM 55-64	1	24	90.79	60.25	80.16
Madison	Atherosclerosis	MWF 85+	1	9	13.85	2.76	9.76
Mitchell	Other Accidents	NWM 65-74	1	10	67.63	13.39	25.88
Tyrrell	Prostate Cancer	NWM 85+	1	7	42.22	28.50	21.57
Tyrrell	Diabetes	NWM 85+	1	7	25.27	18.25	13.94
Watauga	Other Ischemic H.D.	NWM 75-84	1	10	65.01	46.19	82.07
Watauga	Atherosclerosis	NWF 85+	1	4	30.25	4.84	9.76
Yancey	Diabetes	NWF 65-74	1	18	46.88	5.22	13.94

PROCEDURE FOR GEOGRAPHIC CLUSTERING OF COUNTIES

In previous editions of this report, county rates for each leading cause of mortality have been mapped. As described in the Introduction of this volume, these maps showed counties grouped together (usually in six groups) based on similar rates--in other words, a numerical clustering of rates. From these maps, one might imply "spatial" clustering if counties with high rates happened to be contiguous to each other. However, under this procedure there is no way to know whether this clustering is a "true" geographic cluster or an artifact of the SAS clustering procedure (2).

In 1980 the State Center for Health Statistics in conjunction with the UNC Department of Biostatistics developed a new statistical procedure for detecting and characterizing spatial clusters. This procedure determines statistically whether counties with high rates are clustering on some geographic basis. Only a brief summary of the mechanics of the procedure is presented in this section. For a detailed description, interested readers are advised to read "Searching for Hierarchical Clusters of Disease: Spatial Patterns of Sudden Infant Death Syndrome" in Social Science Medicine, Vol. 15D, pp. 287-293 or contact the State Center for Health Statistics.

Briefly the mechanics of this procedure are as follows:

(1) Counties are listed in rank order of their unadjusted or adjusted rates (highest rates first) for each cause of death.

(2) For each county listed, cumulative counts are obtained of the number of counties and the number of adjacencies involved between the county and those counties with higher rates. Two counties are

considered adjacent if they have a common nonsalt-water boundary. For some "pairs" of counties (in particular, counties which seem to touch only at one point on a map), it was difficult to decide whether these counties are adjacent. These "troublesome pairs of counties" in North Carolina are discussed in the above paper as are the decisions made with regard to these pairs.

(3) Finally, a reference table developed in the above paper is used to obtain for the cumulative number of high-rate counties a significance level based on the number of adjacencies observed. While a few adjacencies might be expected to occur randomly, a relatively large number of adjacencies will have a low probability of random occurrence. In this report, the high-rate counties are said to cluster geographically if the probability of such random occurrence is .05 or less; maps for a given disease are included in the text only if statistically significant geographic clusters were found to exist.

This procedure can result in one or more groups of contiguous high-rate counties. This concept is referred to as regionalization, defined here as any area of the state consisting of two or more contiguous counties being identified as a high-risk area. For some diseases, no regionalization of this type exists. For some others it does, and for yet others two or more regions exist. In the latter case, a disease may regionalize with high rates in one part of the state and with other tiers or levels of high rates in some other parts of the state. In this report each map shows the multi-tiers or levels via different shading schemes.

This method is a simple and inexpensive approach for recognizing mortality patterns of varying intensity in geographical areas and for testing for clusters. Further refinements of the procedure are in the planning stage.

REFERENCES FOR SECTION II

1. Kleinman, J.C. "Infant Mortality," Statistical Notes for Health Planners. Number 2, National Center for Health Statistics, Rockville, Maryland, July 1976.
2. SAS Institute Inc. SAS User's Guide: Statistics, 1982 Edition, Cluster Procedure. Cary, N. C., 1982.

III. North Carolina's Population and Health Care Resources

NORTH CAROLINA'S POPULATION AND HEALTH CARE RESOURCES

As stated in the 1976 edition of this volume (1):

> Equal access to health care is a basic right of all citizens, but to date, this right has been precluded in North Carolina by such interrelated deterrents as poverty, rurality, and maldistribution of health care resources.

The ensuing years have brought progress but the old problems still persist. Heart disease, cancer, stroke, and accidents continue to be the leading causes of death. Although declining, North Carolina's infant mortality rate continues to be ranked among the highest in the 50 states. Compounding these problems is a rapidly aging North Carolina population which has served to minimize decreases in mortality.

To combat these problems, significant strides have been made to improve the availability of health care resources. The numbers of physicians, nurses, and hospital and nursing home beds have increased. Services of primary care physicians have been augmented with the increased use of physician assistants and nurse practitioners. But despite these and other recent improvements, North Carolina still ranks behind most other states in the availability of most types of health manpower and facilities (2).

From this assessment, one fact appears to be quite evident. That is, neither the problems nor the resources are evenly distributed in North Carolina. Too often the problems occur where the resources are scarce. While this section will not undertake a detailed analysis of health care resources in each county, it will examine the levels of selected health manpower and facilities across the state. Hopefully, these data will aid health officials and others in planning for improved health conditions throughout the state.

County Populations

Underscoring the state's need to improve the availability and distribution of health care resources, increasing size and changing composition of North Carolina's population are altering the disease and mortality proneness of various geographical areas. Between 1976 and 1981, North Carolina's population increased an estimated 6.5 percent, with nonwhites experiencing an 8.6 percent increase. Of prime importance here is the rapidly aging North Carolina population. During the past 5 years, persons 65 and over increased by 17.8 percent, a pace faster than that for the United States as a whole. While the state's population as a whole is projected to increase only 7 percent by 1986, the state's elderly population is expected to increase another 17.8 percent. Further, persons 75 and older are projected to increase by 27 percent in the next five years, a pace faster than that of any other age group.

While detailed analysis of each county's population is beyond the scope of this volume, county populations have been compared to the state population with respect to four demographic characteristics--percent rural, percent over 64 years of age, percent nonwhite, and percent with income below the poverty level. In the 1976 edition of this volume, 31 counties were found to be above the state rate on all four characteristics. When the same comparison was done with 1980 data, 30 counties were above the state, including 26 of those in 1976. As before, these demographically high-risk counties comprise fairly well-defined geographical pockets in central and eastern North Carolina:

Anson
Beaufort
Bertie
Bladen
Camden
Chowan
Columbus
Duplin
Edgecombe
Franklin
Gates
Granville
Halifax
Hertford
Hyde
Jones
Lenoir
Martin
Nash
Pamlico
Pender
Perquimans
Person
Richmond
Robeson
Sampson
Swain
Tyrrell
Vance
Warren

County Population Per Primary Care Physician

Although there are over seventy specialties to which the state's 7,713 physicians may devote their practice, the majority of a county's primary health care needs can be met by physicians in general or family practice, internal medicine, obstetrics and gynecology, and pediatrics. These specialties are usually grouped under the heading of primary care physicians and in 1981 totaled 3,316 as a group. In 1981 there were 1,797 North Carolina residents per primary care physician.

Figure 1.A shows the population per primary care physician for the state's counties in 1981. These ratios provide an idea of the average potential case loads to be served. The reader should bear in mind that the medical needs and demands of a county's population are determined by many factors and that population-to-physician ratios allow only a rough comparison. Counties with younger populations, for example, can tolerate a higher population-per-physician ratio than those with older populations. Further, these ratios are biased upward for counties with a large armed forces population (in particular, Craven, Cumberland, Onslow, and Wayne) because federal physicians are not included in the physician population although the county population includes members of the armed forces.

As shown in Figure 1.A, there is a predominance of eastern counties in the high population-to-physician-ratio groups (Levels 5-6); yet there are other eastern counties--Chowan, Pasquotank, Dare, and New Hanover--which have relatively low ratios (Level 1). Physicians in these latter counties may well be providing primary care services to surrounding counties.

Among the counties with level-four to level-six ratios, four--Bertie, Camden, Gates, and Perquimans--have both a demographically high-risk population (see page 3-4) and high mortality (See Figure 2.A). Two of these counties (Camden and Perquimans) have only one primary care physician and one (Gates) has none.

County Population Per Primary Care Physician, Physician Assistant, and Nurse Practitioner

In North Carolina there has been a recent increase in the use of physician assistants and nurse practitioners. Variously referred to as health practitioners, physician extenders, or mid-level practitioners, these professionals can perform certain defined medical tasks previously done by physicians; however, they can perform these tasks only under a physician's supervision. Yet, their impact on the level of primary care services available in North Carolina requires that these professionals be considered for the first time in this volume.

During 1981 a total of 762 physician assistants and nurse practitioners provided primary care services in 87 counties. Because of the number and distribution of these professionals, it is desirable to show their effect on the potential case load of primary care physicians. One approach involves treating these practitioners as some proportion of a fulltime primary care physician, thereby reflecting the proportion of physician's work that the practitioner may perform. A recent study suggested 63 percent as a "good middle-of-the-road estimate" (3). Using this percent, every 100 physician assistants and nurse practitioners will be equivalent (in terms of work load) to 63 fulltime physicians. The number of practitioners obtained using this procedure will hereafter be referred to as "physician equivalents." For North Carolina, the population-per-primary-care-physician-and-physician-equivalent ratio is 1570.

Figure 1.B shows the county population per primary care physician and physician equivalent in 1981. The use of this ratio changes substantially the picture of primary care services available in some counties, especially a few of the high-ratio counties identified in Figure 1.A. For example, in Greene County, the population-per-physician (1 physician) ratio is 16,078 but the population-per-physician/physician-equivalent (1 physician, 4 nurse practitioners, and 2 physician assistants) ratio is 3,364, a 79.1 percent decrease in potential case load. In Hoke County the respective ratios are 7,067 (3 physicians) and 4,336 (3 physicians and 3 physician assistants). Gates was the only county without a primary care physician and thus had no physician assistants or nurse practitioners. Counties with high ratios (Levels 5 and 6) in both Figures 1.A and 1.B should be priority areas for recruitment of primary care services. Among these counties, four--Bertie, Camden, Gates, and Perquimans--appear in particular need of additional services because they have demographically high-risk populations (see page 3-4), have high mortality rates (Levels 4-6), and have population/physician-equivalent ratios over 2.5 times the North Carolina ratio of 1,570.

County Population Per Registered Nurse

The ratios of Figure 1.C are the county populations per registered nurse working in the county and licensed to practice in North Carolina as of March 1, 1981. As expected, counties with high population/nurse ratios are largely those with high population/physician ratios (Figure 1.A). One exception is Graham County with a very high population/nurse ratio but a relatively low population/physician ratio.

As discussed for physicians, county needs for registered nurses must take into account the characteristics of county populations. In Figure 1.C, the 11 counties with population/nurse ratios at levels 4-6 include six counties--Currituck, Franklin, Hyde, Northampton, Pamlico, and Warren--which are demographically high-risk according to criteria described on page 3-4 and are unusually mortality-prone (Levels 4-6) as depicted in Figure 2.A.

County Population Per Hospital Bed

Short-term general hospitals provide a broad range of medical and surgical services to patients whose average hospital stay is less than 30 days. The ratios of Figure 1.D are the county populations per patient bed in short-term general hospitals licensed by the North Carolina Division of Facility Services as of December 31, 1981. As explained for physicians, federal hospitals are not included but county populations include members of the armed forces; thus, ratios are biased upward for counties with large military populations (i.e., Craven, Cumberland, Onslow, and Wayne counties).

As shown in Figure 1.D, seventeen North Carolina counties have no short-term general hospitals (level six) and another ten have high population/bed ratios (Levels 4 and 5). Among these counties, three (Camden, Gates, and Perquimans) are also demographically high-risk according to the criteria given on page 3-4, have high mortality rates as shown in Figure 2.A, and have high population-per-physician/physician-equivalent ratios. The population-per-bed ratio for North Carolina is 270.

Even more so than in the case of physicians, hospitals in certain larger counties will provide services to the residents of surrounding counties. Therefore a high ratio for a county does not necessarily mean that its residents are not receiving hospital services. It is not feasible for every N.C. county to have a hospital, and regionalization of some services is indeed desirable.

County Population 75+ per Skilled Nursing and Intermediate Care Beds

Two levels of nursing homes exist in North Carolina--skilled nursing facilities and intermediate care facilities. Skilled nursing facilities provide continuous medical supervision to patients for management of chronic conditions. Intermediate care facilities provide health-related care and services to individuals who do not require the degree of care or treatment which a hospital or skilled nursing facility is designed to provide. Many nursing homes offer both levels of care. (4)

The growth of nursing homes and nursing home beds over the past decade has been tremendous. In 1970 there were 108 homes containing 6,809 beds for skilled and intermediate care. By 1981 the number of facilities had increased to 205 and the number of beds to 19,824, a near doubling of facilities and tripling of beds. The number of primary users of these beds has increased rapidly also. In this volume, "users" are defined as persons over age 74 due to the fact that this age group comprised 71 percent of all admissions to nursing homes in 1980-81. Between 1970 and 1981, the 75-and-older population increased 61 percent and, as noted previously, is projected to increase another 27 percent by 1986 (5). Yet, while the elderly population continues to grow, the facility and bed growths have essentially stopped with the current moratorium on the approval of new nursing home beds.

Figure 1.E shows the distribution of population-per-skilled-and-intermediate-care-bed ratios for each county. As exemplified in previous maps, an uneven distribution exists among counties with the same eastern high-risk counties having the fewest beds. Several contiguous counties in the northeast corner of the state have no beds, but in the midst of these counties, two--Chowan (4.7) and Pasquotank (5.4)--have exceedingly low ratios in contrast to the state as a whole (11.0 persons 75+ per bed). This suggests that facilities in these two counties may be serving persons from surrounding counties. In fact, among the 21 counties with no beds, almost all have a neighboring county with a low ratio (i.e., less than 10.0).

PRIMARY CARE PHYSICIANS

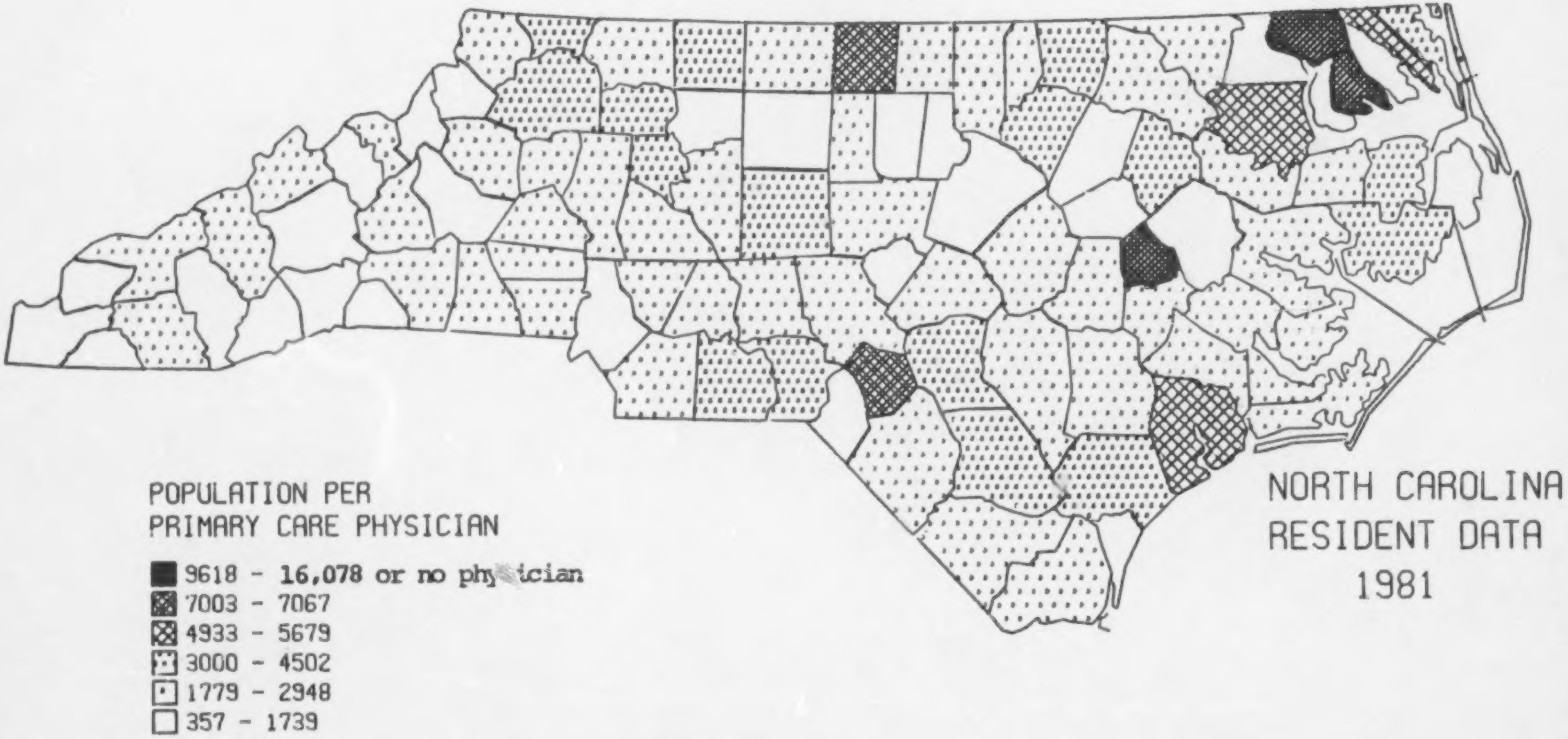

NORTH CAROLINA
RESIDENT DATA
1981
POPULATION PER
PRIMARY CARE PHYSICIAN
■ 9618 - 16,078 or no phy[illegible]ician
▩ 7003 - 7067
▨ 4933 - 5679
⁘ 3000 - 4502
⊡ 1779 - 2948
☐ 357 - 1739

FIGURE I.A

PRIMARY CARE PHYSICIANS, PHYSICIAN'S ASSISTANTS AND NURSE PRACTITIONERS

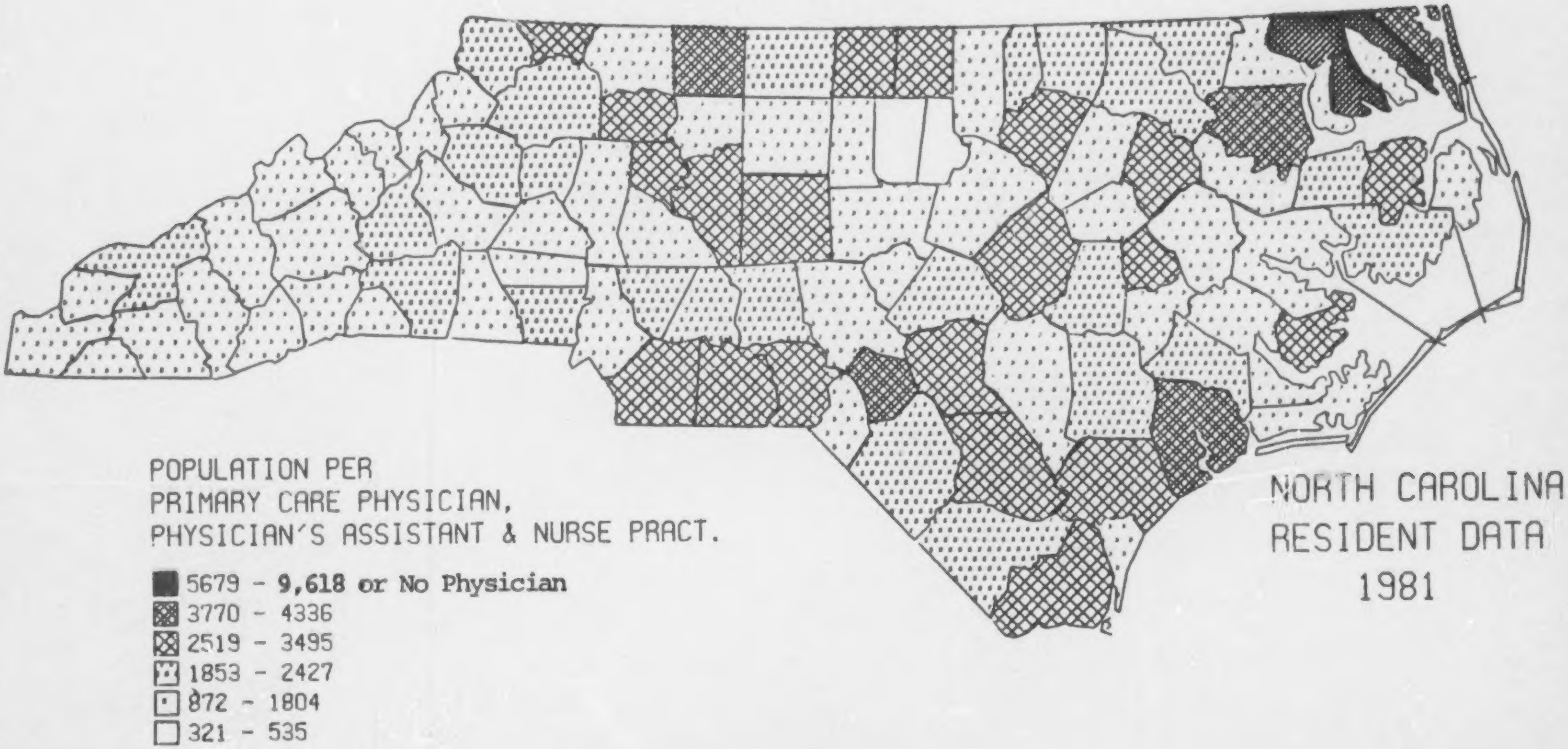
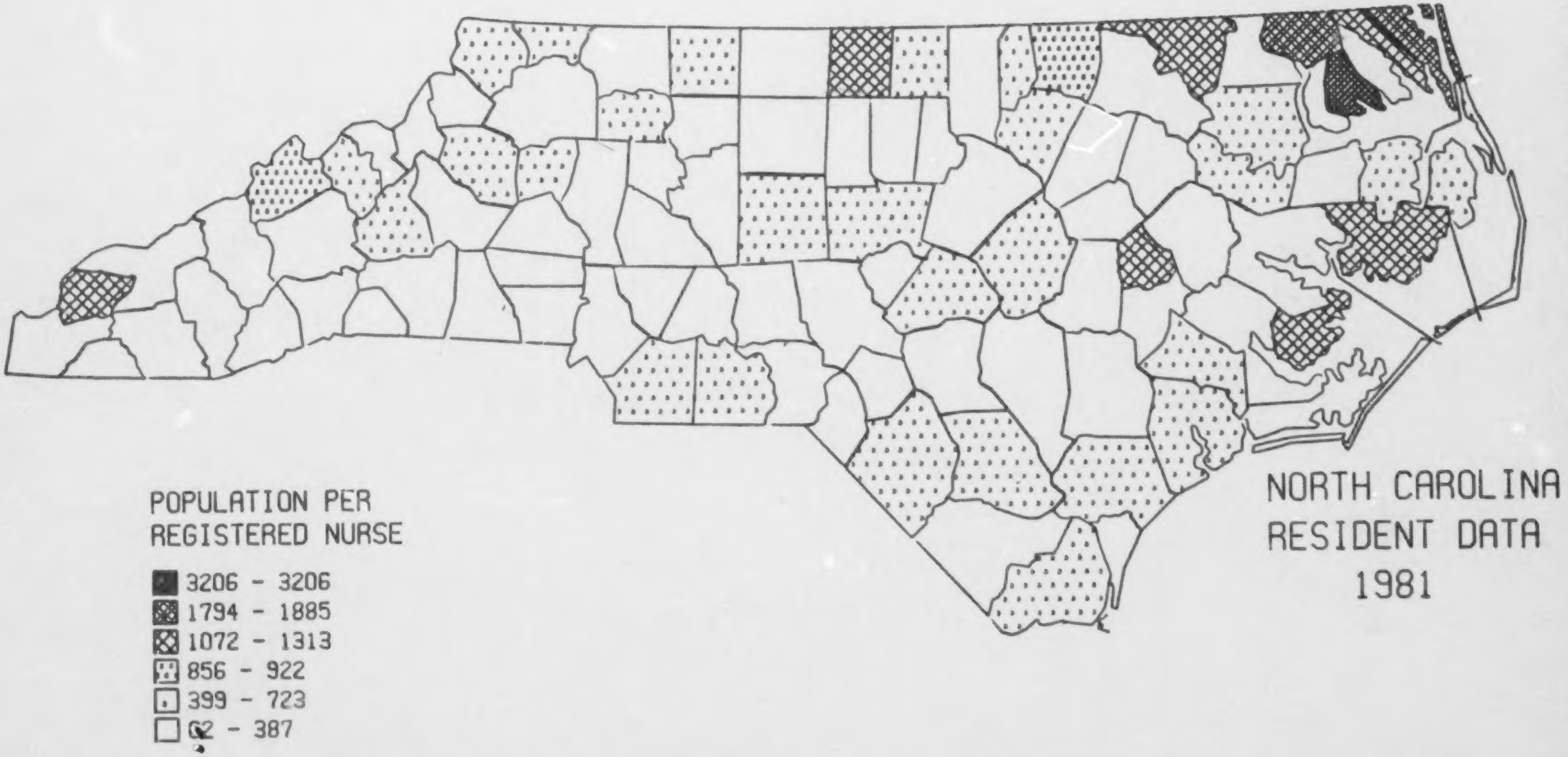

POPULATION PER
PRIMARY CARE PHYSICIAN,
PHYSICIAN'S ASSISTANT & NURSE PRACT.
■ 5679 - 9,618 or No Physician
▩ 3770 - 4336
▨ 2519 - 3495
▦ 1853 - 2427
⊡ 872 - 1804
□ 321 - 535
NORTH CAROLINA
RESIDENT DATA
1981

FIGURE 1.B

REGISTERED NURSES


POPULATION PER
REGISTERED NURSE
■ 3206 - 3206
▩ 1794 - 1885
▨ 1072 - 1313
⁙ 856 - 922
⊡ 399 - 723
☐ 62 - 387

NORTH CAROLINA
RESIDENT DATA
1981

FIGURE 1.C

SHORT-TERM GENERAL HOSPITAL BEDS

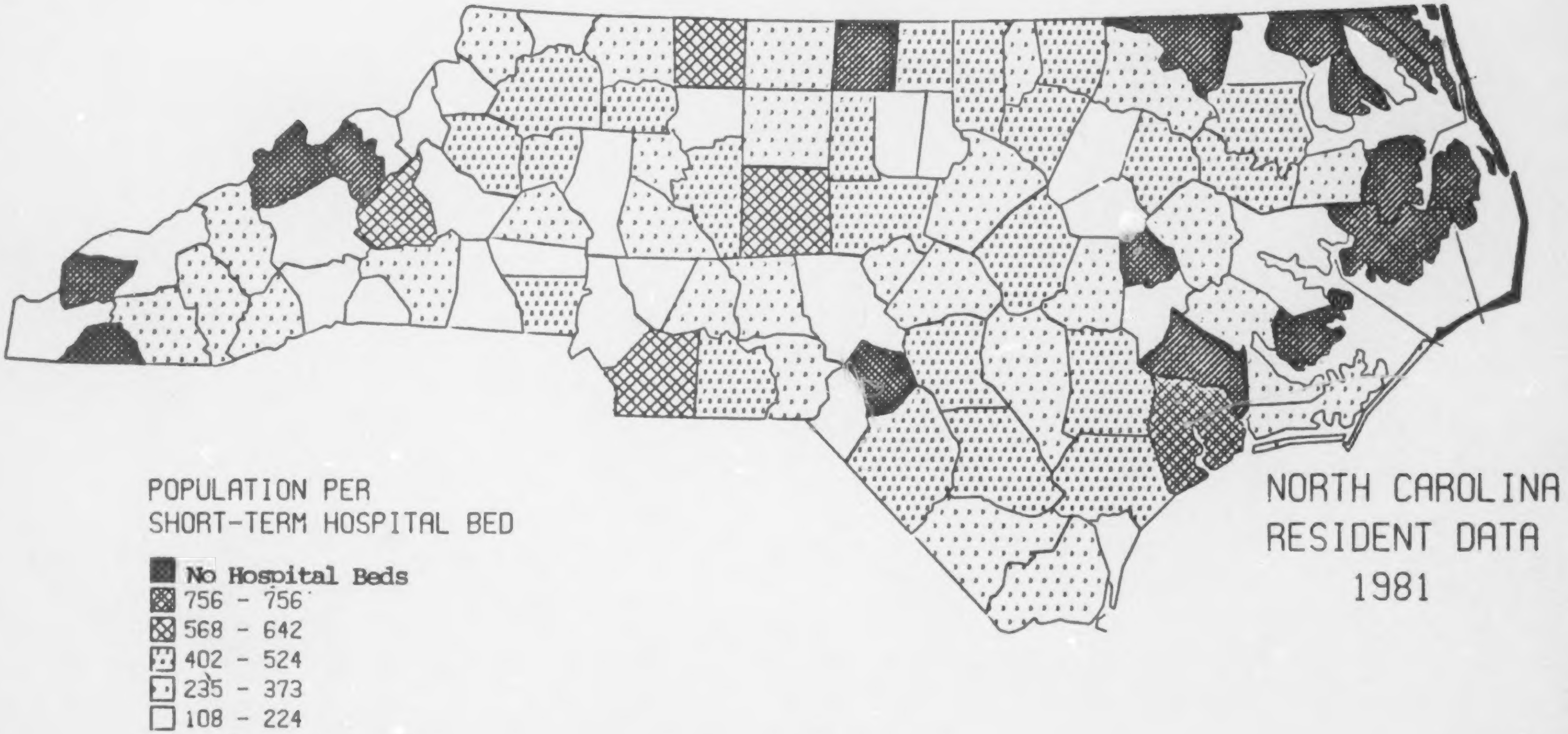

POPULATION PER
SHORT-TERM HOSPITAL BED
No Hospital Beds
756 - 756
568 - 642
402 - 524
235 - 373
108 - 224
NORTH CAROLINA
RESIDENT DATA
1981

FIGURE 1.D

SKILLED & INTERMEDIATE CARE NURSING BEDS

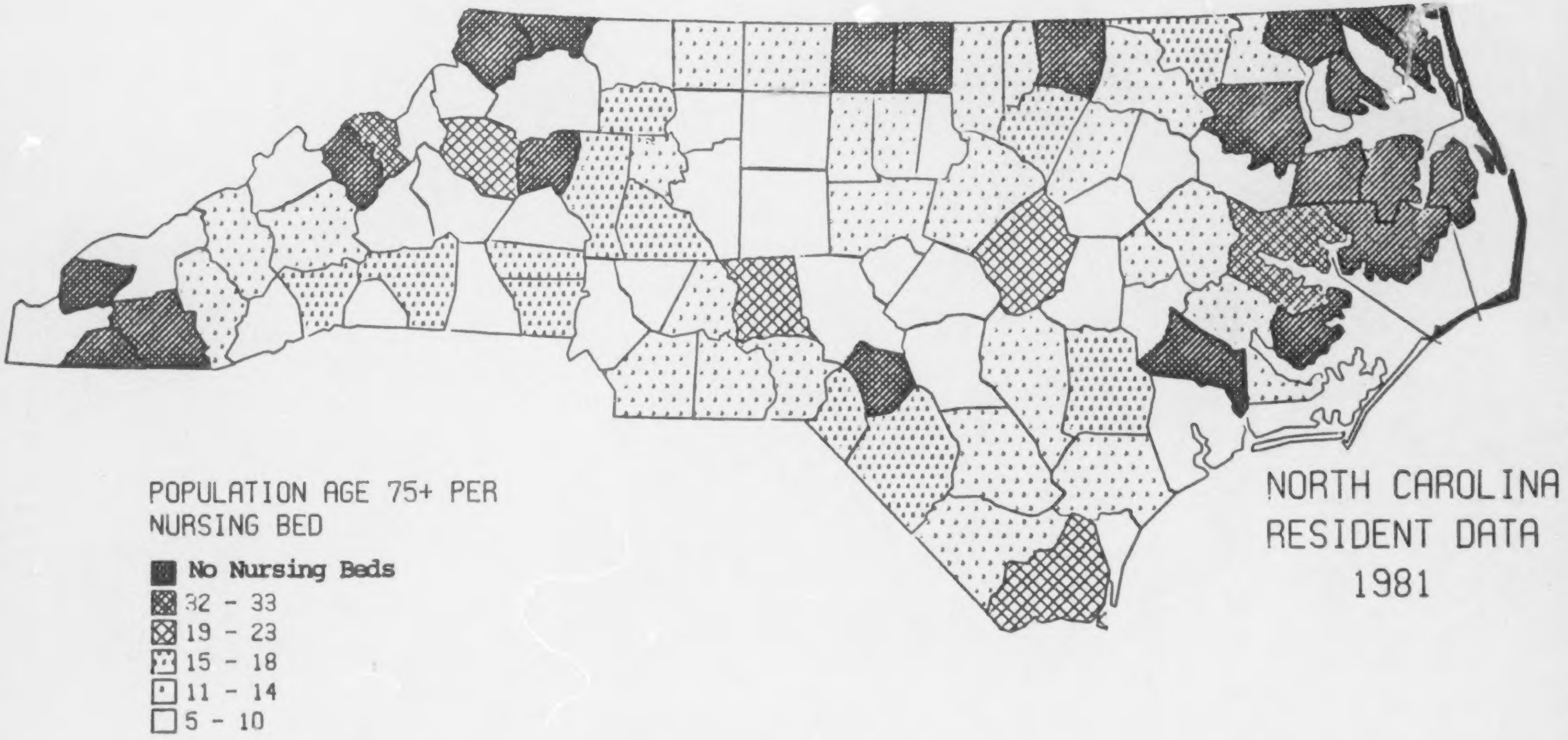

NORTH CAROLINA
RESIDENT DATA
1981
POPULATION AGE 75+ PER
NURSING BED
▩ **No Nursing Beds**
▩ 32 - 33
▨ 19 - 23
▦ 15 - 18
☐ 11 - 14
☐ 5 - 10

FIGURE 1.E

REFERENCES FOR SECTION III

1. North Carolina Department of Human Resources, Division of Health Services, State Center for Health Statistics. Leading Causes of Mortality - Volume II. Raleigh, December 1977.

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4. North Carolina Department of Human Resources, Division of Facility Services, State Health Planning Section. State Medical Facilities Plan 1983, Raleigh, January 1983.

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IV. General Mortality in North Carolina

GENERAL MORTALITY IN NORTH CAROLINA

During 1981 a total of 49,212 North Carolinians died. This number represents an annual death rate of 8.3 resident deaths per 1,000 population, 5.7 percent below the rate of 8.8 in 1970 but almost equal to the corrected (for reasons described in Section II) rate of 8.2 in 1976. The provisional 1981 rate for the United States was higher at 8.7 (1).

One confounding factor in making comparisons of mortality rates is that age structure, which has an important effect on mortality, may vary among geographic areas and over time. Compared to the nation, North Carolina has a younger but more rapidly aging population. Thus, adjusting the North Carolina and United States mortality rates for age, a higher mortality rate is obtained for N.C. (6.1) than the U.S. (5.7) for 1981, illustrating that N.C.'s lower unadjusted rate is due to its favorable age structure (i.e., more people at the young low-risk ages). The "bottoming-out" of the unadjusted rates in the seventies suggests also that the N.C. population is aging.

While the N.C. trend for unadjusted rates indicates virtually no change in mortality, examination of adjusted rates shows a different pattern. From the 1974-78 to the 1979-81 period (periods in which comparable age-adjusted rates were readily available), the risk of death for North Carolinians actually declined by 7.9 percent from 668.2 to 615.6 per 100,000 population.

Yet, within the above general comparisons of mortality, significant subgroup differences are concealed, especially between N.C. and the U.S. For example, while the unadjusted U.S. rate was higher than that for North Carolina, each of the ten-year age groups between ages 35 and 64 in North

Carolina had age-specific rates at least 10 percent higher than comparable United States groups. The other North Carolina age groups with higher rates were the 0-4 age group (8.3% higher), the 5-14 group (1.6% higher), and the 65-74 group (4.4% higher). The 15-24, 25-34 and 85+ N.C. age groups had lower rates than their U.S. counterparts.

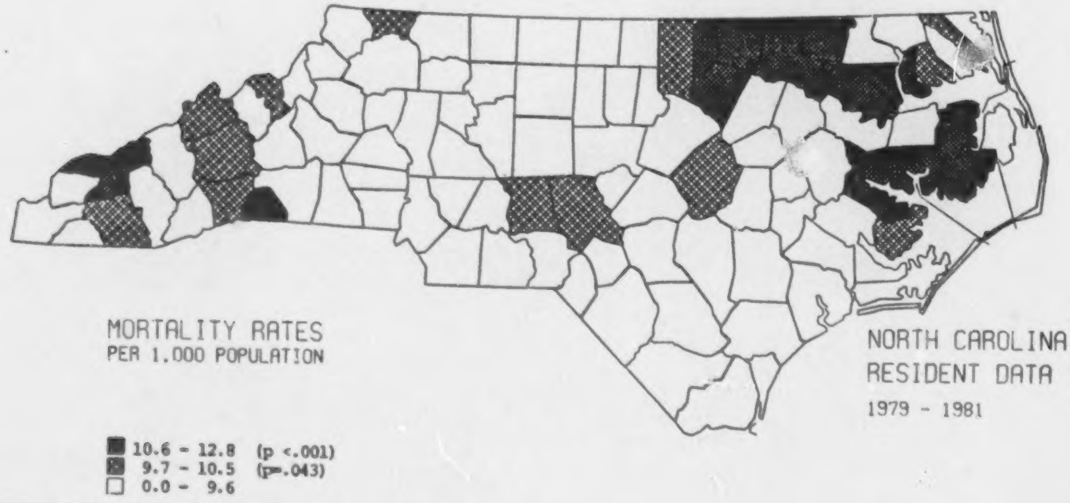
As observed with age, general comparisons can mask variations by race and sex. Looking at North Carolina deaths in the 1979-81 period, the nonwhite rate (840.5 per 100,000 population) exceeded the white rate (808.8) by only 3.9 percent, but the male rate (948.4) exceeded the female rate (692.0) by 37.1 percent. Yet, even those comparisons mask the exceedingly high overall mortality rate for nonwhite males. Adjusting the race-sex-specific rates for age using a relatively young 1940 U.S. population as the standard, the adjusted rate was lower than the unadjusted rate for each race-sex group except nonwhite males, who had a higher death rate after adjustment (1010.8 vs. 1126.0). This higher rate implies that nonwhite males are dying at younger ages than any other race-sex group, a fact also revealed through the age-specific rates. With the exception of the 15-24 and 85+ age groups, nonwhite males had the highest age-specific mortality rates of the four race-sex groups. In each of the ten-year age groups between ages 25 and 54, the rates for nonwhite males were at least twice those for any other group. In Sections V through X, the varying risks of mortality by age, race, and sex groups will be discussed for each cause.

Geographic Patterns

The 1979-81 unadjusted mortality rates for counties, depicted in Figure 2.A, ranged from 3.8 per 1,000 population to 12.8, with a N.C. rate of 8.3 for the period. In general, Figure 2.A shows several scattered groups of high-rate counties, with the northeast seemingly having the largest cluster. In most cases, these high rates reflect unfavorable mortality conditions other than age, race, and sex since among the 23 counties with level-five or higher unadjusted rates (Figure 2.A), 18 had level-four or higher adjusted rates (Figure 2.B). In addition, Figure 2.B shows a large eastern band of contiguous, high-rate counties (levels 5-6) extending from Virginia to South Carolina and eastward to the Atlantic Ocean.

Based on procedures described in Section II of this volume, the clustering of high unadjusted county rates in the northeast was found to be statistically significant (see map below). In fact, two separate northeastern clusters were found to exist: one group involving seven counties centered around Halifax and Warren counties, and a second group with high but lesser rates consisting of Beaufort, Hyde, and Tyrrell counties. These 10 counties are among the top 12 counties experiencing the highest mortality rates in the 1979-81 period. A third distinct cluster exists in the west with Polk, which had the highest of all county rates, as the base.

GENERAL MORTALITY



The clustering of high adjusted rates in the east was also found to be statistically significant (see map below). Unlike the unadjusted rates, no significant clusters of high adjusted rates exist in the west. Thus, eastern North Carolina is experiencing high levels of general mortality that cannot be explained on the basis of age, race, and sex alone. In these cases, high mortality may be due to socioeconomic and resource factors (see discussion of health care resources in Section III) or to some other set of local conditions that invite intervention. The cause-specific data in the sections to follow will aid counties in identifying their particular kinds of mortality proneness.

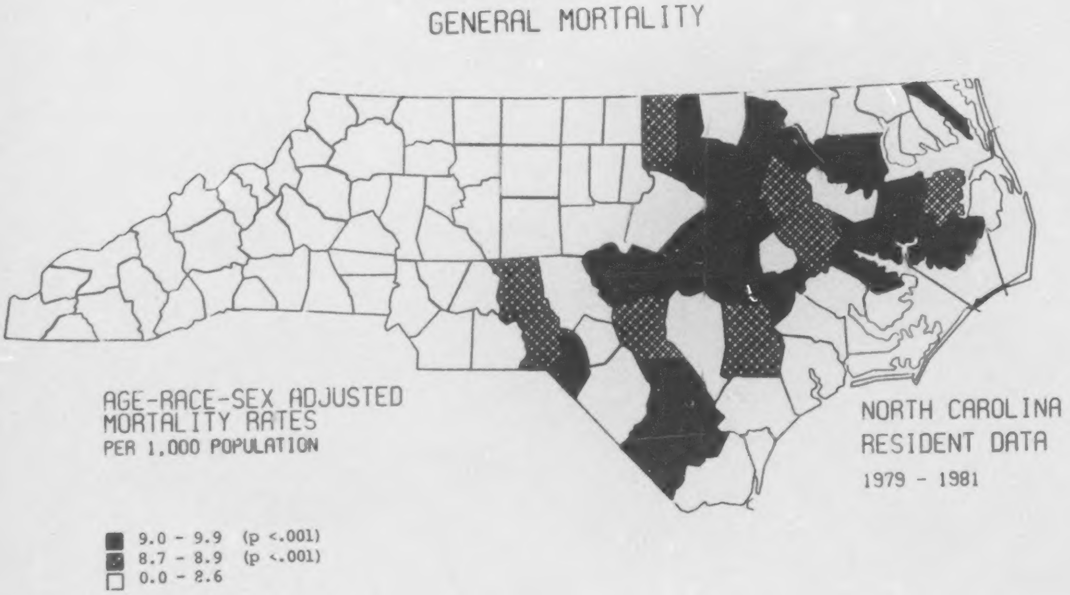

GENERAL MORTALITY
AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 1,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
■ 9.0 - 9.9 (p <.001)
▨ 8.7 - 8.9 (p <.001)
☐ 0.0 - 8.6

TABLE 2

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

TOTAL DEATHS (PER 1000 POPULATION)

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	49212	8.25	144278	8.16	8.16
REGIONS					
DHR I WESTERN	17203	8.41	49936	8.26	7.99
DHR II N. CENTRAL	10732	8.42	31606	8.34	8.06
DHR III S. CENTRAL	10244	7.43	30555	7.45	8.39
DHR IV EASTERN	11033	8.71	32181	8.54	8.62
HSA I WESTERN	8996	8.71	26241	8.58	7.77
HSA II PIEDMONT	9182	8.15	27073	8.08	7.97
HSA III S. PIEDMONT	8207	8.11	23695	7.93	8.20
HSA IV CAPITAL	6548	7.88	19444	7.91	8.35
HSA V CARDINAL	7173	7.86	21209	7.85	8.53
HSA VI EASTERN	9106	8.68	26616	8.51	8.67
COUNTIES					
1 ALAMANCE	949	9.52	2692	9.02	8.29
2 ALEXANDER	205	8.02	557	7.38	8.17
3 ALLEGHANY	105	10.79	304	10.50	7.42
4 ANSON	249	9.72	738	9.63	8.05
5 ASHE	213	9.37	623	9.30	7.07
6 AVERY	118	7.98	348	7.99	7.23
7 BEAUFORT	412	9.95	1318	10.78	9.38
8 BERTIE	209	9.84	690	10.90	9.25
9 BLADEN	292	9.49	869	9.50	9.27
10 BRUNSWICK	315	8.46	904	8.32	8.07
11 BUNCOMBE	1587	9.81	4736	9.80	8.03
12 BURKE	473	6.45	1512	6.95	7.45
13 CABARRUS	837	9.52	2376	9.20	8.71
14 CALDWELL	506	7.42	1445	7.13	7.75
15 CAMDEN	66	11.62	177	10.21	9.10
16 CARTERET	404	9.41	1090	8.70	8.04
17 CASWELL	170	8.09	522	8.39	8.07
18 CATAWBA	801	7.50	2340	7.41	8.06
19 CHATHAM	308	9.05	856	8.48	7.46
20 CHEROKEE	160	8.32	505	8.88	6.22
21 CHOWAN	131	10.36	421	11.12	8.33
22 CLAY	74	10.63	195	9.69	7.42
23 CLEVELAND	778	9.27	2170	8.68	8.42
24 COLUMBUS	490	9.43	1454	9.44	9.04
25 CRAVEN	516	7.18	1499	7.00	8.70
26 CUMBERLAND	1253	4.98	3757	5.05	8.87
27 CURRITUCK	107	9.46	290	8.55	8.14
28 DARE	103	7.12	317	7.76	6.45
29 DAVIDSON	856	7.53	2494	7.36	7.78
30 DAVIE	186	7.01	556	7.35	7.24
31 DUPLIN	413	10.10	1182	9.65	8.88
32 DURHAM	1279	8.26	3846	8.37	8.31
33 EDGECOMBE	542	9.65	1534	9.10	8.82
34 FORSYTH	2006	8.12	5952	8.11	7.93
35 FRANKLIN	336	11.00	979	10.83	9.04
36 GASTON	1348	8.20	4004	8.22	8.77
37 GATES	79	8.80	250	9.44	7.40
38 GRAHAM	55	7.79	173	8.08	8.12
39 GRANVILLE	338	9.78	1003	9.79	8.85
40 GREENE	109	6.77	370	7.73	8.33
41 GUILFORD	2569	8.08	7593	7.98	8.01

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
TOTAL DEATHS (PER 1000 POPULATION) CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	597	10.76	1770	10.64	9.00
43 HARNETT	525	8.69	1551	8.64	9.00
44 HAYWOOD	443	9.44	1296	9.27	7.93
45 HENDERSON	644	10.62	1806	10.22	8.15
46 HERTFORD	241	10.24	662	9.42	7.80
47 HOKE	133	6.27	401	6.54	7.49
48 HYDE	80	13.33	202	11.29	9.04
49 IREDELL	733	8.70	2089	8.39	7.86
50 JACKSON	194	7.33	567	7.31	7.26
51 JOHNSTON	694	9.66	2123	9.97	9.85
52 JONES	65	6.69	251	8.65	8.19
53 LEE	332	8.95	1066	9.70	9.82
54 LENOIR	603	10.04	1745	9.73	9.42
55 LINCOLN	316	7.36	979	7.72	8.24
56 MCDOWELL	310	8.64	830	7.88	7.25
57 MACON	222	10.46	645	10.45	7.43
58 MADISON	187	10.67	511	10.04	7.16
59 MARTIN	259	9.82	757	9.67	8.69
60 MECKLENBURG	3003	7.29	8665	7.14	8.03
61 MITCHELL	160	11.02	453	10.44	7.25
62 MONTGOMERY	214	9.42	691	10.31	8.99
63 MOORE	519	10.11	1575	10.40	8.23
64 NASH	642	9.38	1900	9.37	9.19
65 NEW HANOVER	938	8.88	2622	8.42	8.57
66 NORTHAMPTON	251	11.15	739	10.88	8.27
67 ONSLOW	447	3.94	1301	3.82	8.02
68 ORANGE	485	6.26	1360	5.88	7.62
69 PAMLICO	98	9.39	313	10.11	8.16
70 PASQUOTANK	279	9.81	788	9.25	8.17
71 PENDER	184	8.17	585	8.79	7.84
72 PERQUIMANS	95	9.87	289	10.08	6.96
73 PERSON	266	9.02	791	9.03	8.23
74 PITT	741	8.04	2095	7.71	8.81
75 POLK	159	11.85	500	12.77	8.73
76 RANDOLPH	632	6.79	1922	6.99	7.72
77 RICHMOND	446	9.72	1305	9.57	8.86
78 ROBESON	828	8.04	2514	8.23	8.68
79 ROCKINGHAM	762	9.00	2286	9.11	8.58
80 ROWAN	1045	10.42	2832	9.51	7.92
81 RUTHERFORD	526	9.64	1526	9.43	7.98
82 SAMPSON	512	10.26	1414	9.51	8.55
83 SCOTLAND	275	8.44	829	8.53	9.34
84 STANLY	427	8.85	1309	9.05	8.46
85 STOKES	246	7.22	739	7.41	7.76
86 SURRY	579	9.66	1625	9.12	7.97
87 SWAIN	124	11.96	331	10.68	8.42
88 TRANSYLVANIA	191	8.00	528	7.48	6.57
89 TYRRELL	38	9.19	136	11.22	8.79
90 UNION	498	6.90	1441	6.82	7.69
91 VANCE	404	10.97	1188	10.79	9.46
92 WAKE	1900	6.17	5660	6.25	7.92
93 WARREN	206	12.67	572	11.69	8.34
94 WASHINGTON	121	8.23	406	9.14	9.08
95 WATAUGA	173	5.29	595	6.21	6.79
96 WAYNE	864	8.86	2345	8.03	9.02
97 WILKES	448	7.56	1371	7.75	7.80
98 WILSON	594	9.38	1779	9.42	9.45
99 YADKIN	227	7.82	692	8.07	7.45
100 YANCEY	140	9.32	374	8.32	5.66

* SEE SECTION II

GENERAL MORTALITY

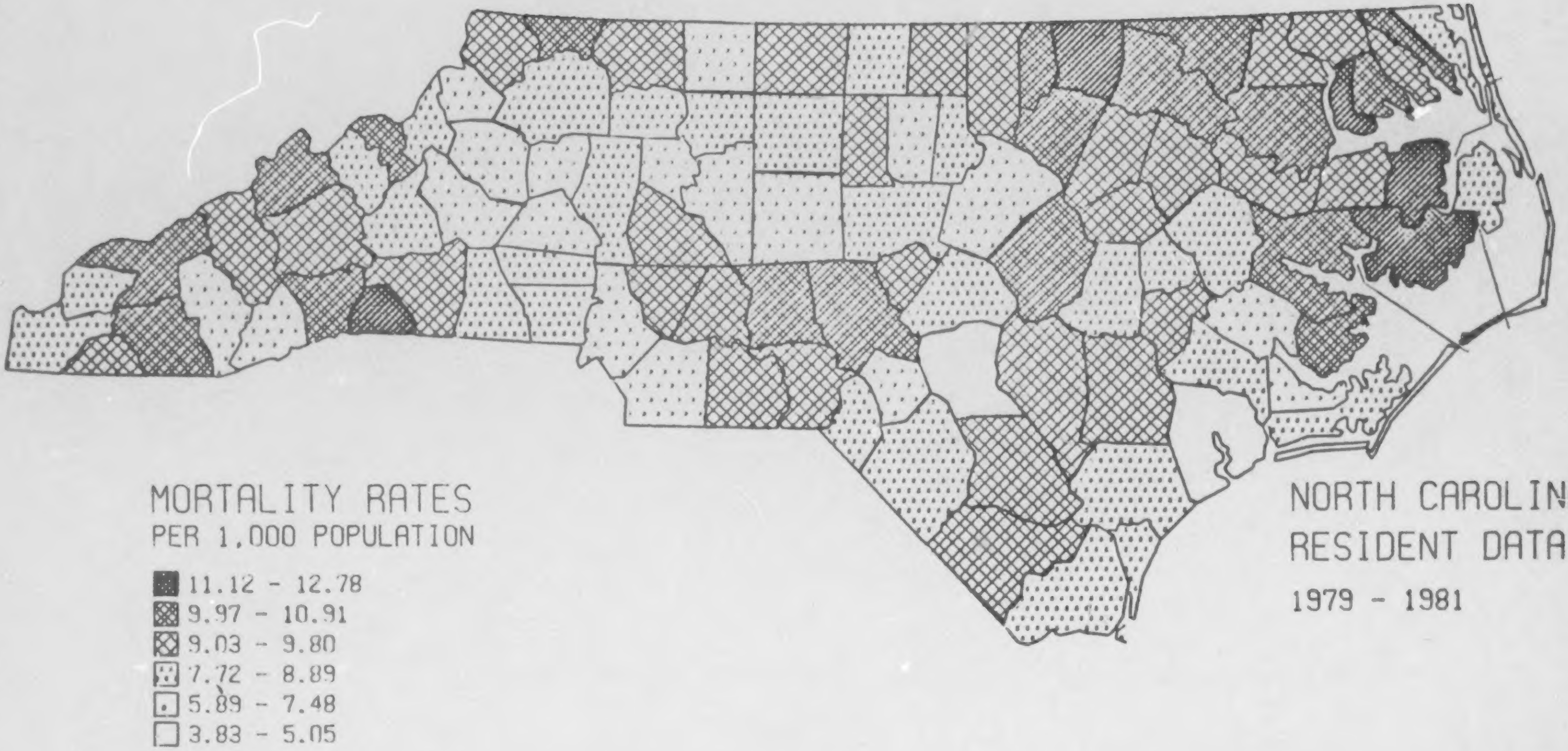

MORTALITY RATES
PER 1,000 POPULATION
▨ 11.12 - 12.78
▨ 9.97 - 10.91
▨ 9.03 - 9.80
▨ 7.72 - 8.89
☐ 5.89 - 7.48
☐ 3.83 - 5.05
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 2.A

GENERAL MORTALITY

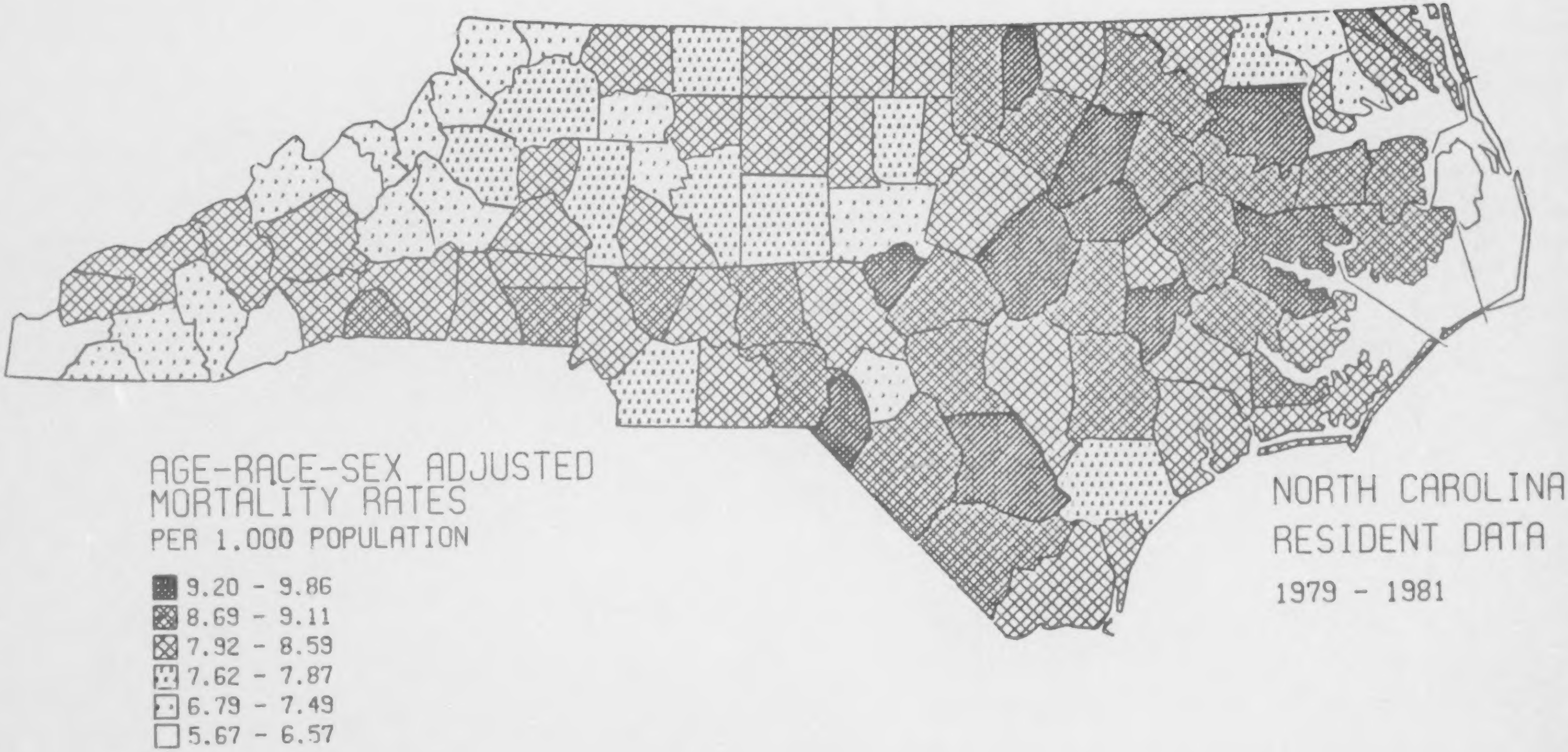

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 1.000 POPULATION
9.20 - 9.86
8.69 - 9.11
7.92 - 8.59
7.62 - 7.87
6.79 - 7.49
5.67 - 6.57
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 2.B

REFERENCE FOR SECTION IV

1. United States Department of Health and Human Services, Public Health Service, National Center for Health Statistics. "Annual Summary of Births, Deaths, Marriages, and Divorces: United States 1981, "Monthly Vital Statistics Report. (PHS) 83-1120, Volume 30, Number 13, Hyattsville, Maryland, December 20, 1982.

V. Major Cardiovascular Disease Mortality

HEART DISEASE

Over 37 percent of deaths among North Carolina residents in 1981 resulted from heart disease, which has been the leading cause of death for the state and the nation for almost 50 years (1). Diseases of the heart accounted for 18,270 deaths in the state in 1981, a rate of 306.5 per 100,000 population. While the 1981 provisional rate for the United States was higher at 330.6 (2), North Carolina's age-adjusted rate of 211.7 was 7.8 percent higher than the nation's (196.4).

Almost 72 percent of the state's heart disease deaths were from ischemic heart disease in 1981. Of these deaths, acute myocardial infarction (heart attacks) accounted for 8,091 deaths while the other forms of ischemic heart disease accounted for 5,036 deaths.

The death rate from diseases of the heart has declined in North Carolina, with the 1979-1981 age-adjusted rate of 211.9 representing an 8.4 percent decrease over the 1974-78 rate of 231.4. The largest decrease was among white males for whom the 1979-1981 age-adjusted rate was down over 11 percent at 301.2 as opposed to 338.9 for the 1974-1978 period. Age-adjusted rates for the other race-sex groups also declined and were as follows for 1979-1981 (with percent reduction): 128.0 for white females (6.4%), 333.3 for nonwhite males (2.6%), and 182.9 for nonwhite females (5.7%). Age-adjusted death rates decreased for both acute myocardial infarction and other types of ischemic heart disease for all four race-sex groups.

Risk Factors

A number of factors are associated with an increased risk of heart disease. Among these are hypertension, atherosclerosis, high cholesterol, diabetes, cigarette smoking, increasing age, sex (men have higher mortality rates though the male and female rates tend to converge around the age of menopause), and a sedentary lifestyle (1,3-5). Although white males had the largest decrease in death rates from acute myocardial infarction between the 1974-1978 and 1979-1981 periods, they still die of heart attacks more than twice as often as they die of other ischemic heart disease. For males of all races, heart attacks caused more deaths than other forms of ischemic heart disease up to the 85-and-over age group. The same was true for white females, whereas nonwhite females 75-84 had a higher rate of death from other forms of ischemic heart disease than from heart attacks.

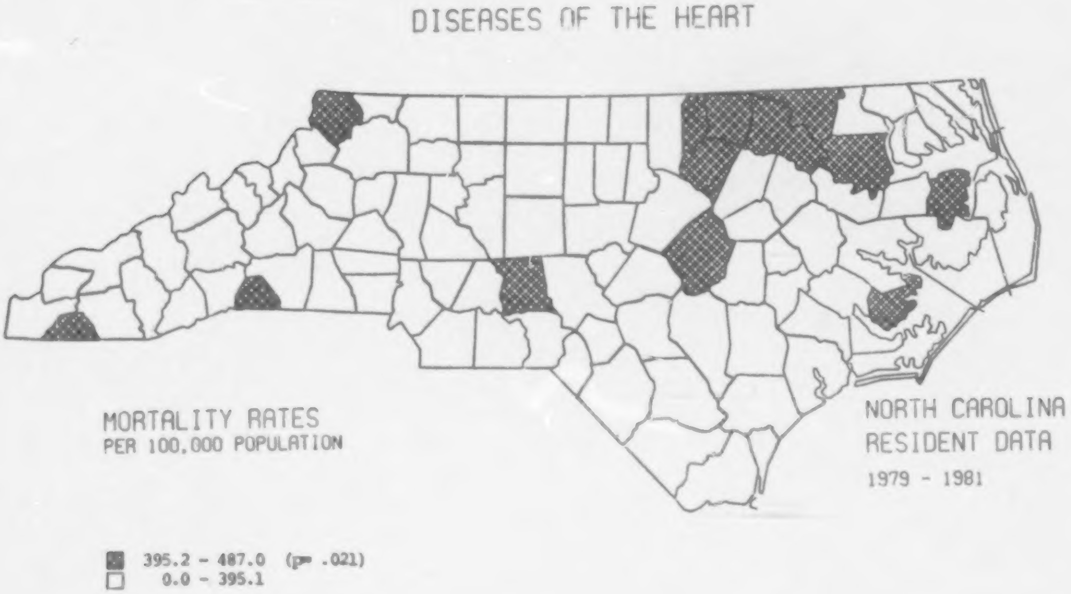
North Carolina's decrease in heart disease death rates is consistent with declines nationwide (1,2). While it is difficult to pinpoint specific reasons for these decreases, awareness of the risk factors associated with heart disease has been heightened in the medical community and general population. As a result, people seem to be more conscious of diet and exercise, and the medical community has responded with earlier diagnosis and treatment of hypertension and other medically associated risk factors (1,4,5).

Geographic Patterns

Figure 3.A depicts mortality rates for diseases of the heart for 1979-1981 and shows several contiguous, high-rate counties in the northeast, southcentral, and western portions the state. Adjusting for age, race, and sex, however, changes the distribution of heart disease mortality among North Carolina residents. As shown in Figure 3.B, the high-rate counties (Levels 4-

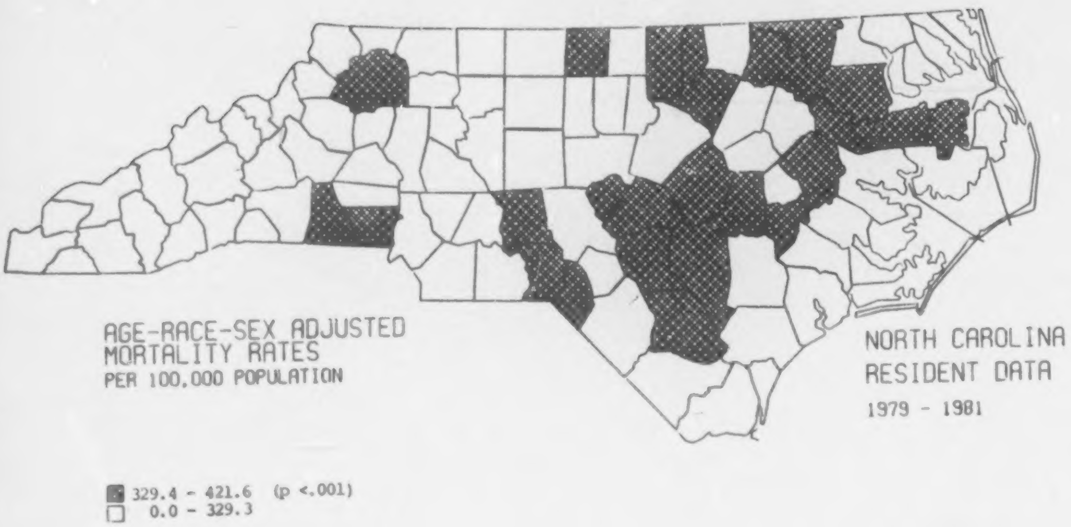
6) exist almost exclusively in the east.

Based on the procedures described in Section II of this report, the map below reveals that of the 13 counties with the highest unadjusted rates, a statistically significant geographic cluster exists in the northeast.


DISEASES OF THE HEART
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▨ 395.2 - 487.0 (p= .021)
☐ 0.0 - 395.1

Adjusting for age, race, and sex, the clustering properties of county rates are stronger and are largely eastern (see map below). The rare and rather large spatial grouping of 15 counties extends from Tyrrell to Halifax and south to Bladen. The interpretation here is that these contiguous counties are all experiencing higher levels of heart disease mortality than can be explained on the basis of age, race, and sex and that some regional factor is in operation.

DISEASES OF THE HEART


AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▨ 329.4 - 421.6 (p <.001)
☐ 0.0 - 329.3

The two major forms of heart disease (acute myocardial infarction and other types of ischemic heart disease) are examined separately in the following sections.

TABLE 3

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

DISEASES OF HEART

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	18270	306.51	53188	300.98	300.98
REGIONS					
DHR I WESTERN	6548	320.46	18938	313.39	294.55
DHR II N. CENTRAL	4022	315.71	11694	308.83	295.40
DHR III S. CENTRAL	3635	263.96	10961	268.83	314.16
DHR IV EASTERN	4065	321.03	11595	307.99	319.89
HSA I WESTERN	3521	341.20	10172	332.80	286.87
HSA II PIEDMONT	3440	305.42	9980	298.15	291.25
HSA III S. PIEDMONT	3027	299.31	8766	293.52	301.92
HSA IV CAPITAL	2371	285.48	7095	288.65	311.89
HSA V CARDINAL	2598	285.03	7624	282.48	320.57
HSA VI EASTERN	3313	315.83	9551	305.69	321.68
COUNTIES					
1 ALAMANCE	377	378.25	1049	351.78	315.91
2 ALEXANDER	75	293.62	191	253.31	287.86
3 ALLEGHANY	36	370.21	106	366.13	297.57
4 ANSON	100	390.60	298	388.98	314.33
5 ASHE	98	431.14	270	403.41	315.38
6 AVERY	49	331.39	155	356.05	293.92
7 BEAUFORT	147	355.20	469	383.91	326.21
8 BERTIE	65	306.30	261	412.55	352.97
9 BLADEN	101	328.46	322	352.10	370.28
10 BRUNSWICK	128	343.90	351	323.22	309.91
11 BUNCOMBE	591	365.38	1786	369.79	287.03
12 BURKE	189	257.91	563	258.99	273.25
13 CABARRUS	311	354.00	909	352.02	317.29
14 CALDWELL	180	264.07	528	260.64	293.24
15 CAMDEN	23	405.00	65	375.26	318.09
16 CARTERET	159	370.62	449	358.43	319.80
17 CASWELL	59	280.83	208	334.65	333.31
18 CATAWBA	297	278.23	871	275.99	286.07
19 CHATHAM	121	355.86	341	337.89	294.74
20 CHEROKEE	62	322.61	178	313.30	199.79
21 CHOWAN	31	245.29	107	282.68	208.35
22 CLAY	34	488.71	92	457.27	322.39
23 CLEVELAND	354	422.24	963	385.48	368.54
24 COLUMBUS	207	398.44	520	337.68	326.27
25 CRAVEN	183	254.76	501	234.12	308.58
26 CUMBERLAND	374	148.92	1201	161.45	329.44
27 CURRITUCK	48	424.40	114	336.44	315.47
28 DARE	36	248.94	131	321.03	267.33
29 DAVIDSON	332	292.09	954	281.87	287.76
30 DAVIE	65	244.98	204	269.84	255.97
31 DUPLIN	145	354.92	419	342.12	320.10
32 DURHAM	450	290.72	1388	302.18	305.78
33 EDGECOMBE	186	331.40	531	315.28	319.92
34 FORSYTH	772	312.72	2241	305.68	298.57
35 FRANKLIN	132	432.22	392	433.74	352.79
36 GASTON	543	330.64	1587	325.90	345.97
37 GATES	34	379.04	102	385.53	272.60
38 GRAHAM	19	269.42	62	289.89	303.61
39 GRANVILLE	114	329.91	371	362.24	338.18
40 GREENE	41	255.00	131	273.90	310.53
41 GUILFORD	892	280.57	2663	280.14	282.38

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
DISEASES OF HEART CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	235	423.94	657	395.21	341.73
43 HARNETT	210	347.94	623	347.12	364.91
44 HAYWOOD	195	415.64	520	372.19	328.58
45 HENDERSON	235	387.75	666	376.98	258.48
46 HERTFORD	103	438.05	252	358.64	301.48
47 HOKE	38	179.22	128	208.80	257.16
48 HYDE	28	466.66	69	385.77	311.34
49 IREDELL	277	329.14	804	323.24	295.89
50 JACKSON	79	298.56	225	290.30	276.52
51 JOHNSTON	306	425.94	914	429.39	421.55
52 JONES	21	216.33	90	310.20	299.87
53 LEE	126	339.71	417	379.83	381.51
54 LENOIR	212	353.30	626	349.27	349.88
55 LINCOLN	138	321.61	394	311.07	323.88
56 MCDOWELL	128	356.87	336	319.07	286.53
57 MACON	90	424.44	242	392.19	255.21
58 MADISON	77	439.44	201	395.14	231.87
59 MARTIN	101	383.21	291	371.95	343.06
60 MECKLENBURG	1028	249.73	2992	246.68	284.73
61 MITCHELL	53	365.13	168	387.38	223.73
62 MONTGOMERY	91	400.81	284	424.14	360.45
63 MOORE	174	339.26	567	374.41	283.42
64 NASH	242	353.87	649	320.09	322.46
65 NEW HANOVER	363	343.77	973	312.64	319.90
66 NORTHAMPTON	105	466.79	286	421.38	336.61
67 ONSLOW	143	126.04	427	125.68	311.90
68 ORANGE	154	198.83	427	184.92	244.79
69 PAMLICO	36	345.05	130	419.91	317.33
70 PASQUOTANK	98	344.73	281	330.11	291.98
71 PENDER	54	239.88	200	300.52	260.70
72 PERQUIMANS	36	374.29	96	335.16	232.00
73 PERSON	102	345.95	303	346.17	313.43
74 PITT	268	290.90	773	284.81	345.94
75 POLK	54	402.50	182	465.10	289.20
76 RANDOLPH	253	271.83	720	261.92	272.89
77 RICHMOND	177	386.01	488	358.10	332.69
78 ROBESON	279	271.16	829	271.40	309.06
79 ROCKINGHAM	276	326.09	797	317.74	294.30
80 ROWAN	391	390.09	1066	358.29	283.51
81 RUTHERFORD	191	350.19	574	355.01	283.96
82 SAMPSON	221	443.19	562	378.00	341.89
83 SCOTLAND	81	248.77	278	286.37	331.03
84 STANLY	163	337.90	503	348.13	312.70
85 STOKES	89	261.34	263	263.96	277.41
86 SURRY	235	392.41	627	352.20	298.45
87 SWAIN	43	415.05	122	393.75	278.87
88 TRANSYLVANIA	78	326.78	206	291.87	269.16
89 TYRRELL	18	435.51	59	486.91	407.42
90 UNION	176	244.20	511	242.17	275.17
91 VANCE	158	429.31	450	408.91	355.09
92 WAKE	632	205.39	1894	209.30	276.78
93 WARREN	76	467.51	198	404.72	311.15
94 WASHINGTON	46	313.09	168	378.25	394.03
95 WATAUGA	55	168.36	216	225.74	269.81
96 WAYNE	334	342.74	859	294.28	346.57
97 WILKES	206	348.01	616	348.26	339.78
98 WILSON	189	298.64	558	295.47	307.55
99 YADKIN	90	310.13	254	296.21	255.68
100 YANCEY	53	353.09	133	296.18	174.83

* SEE SECTION II

DISEASES OF THE HEART

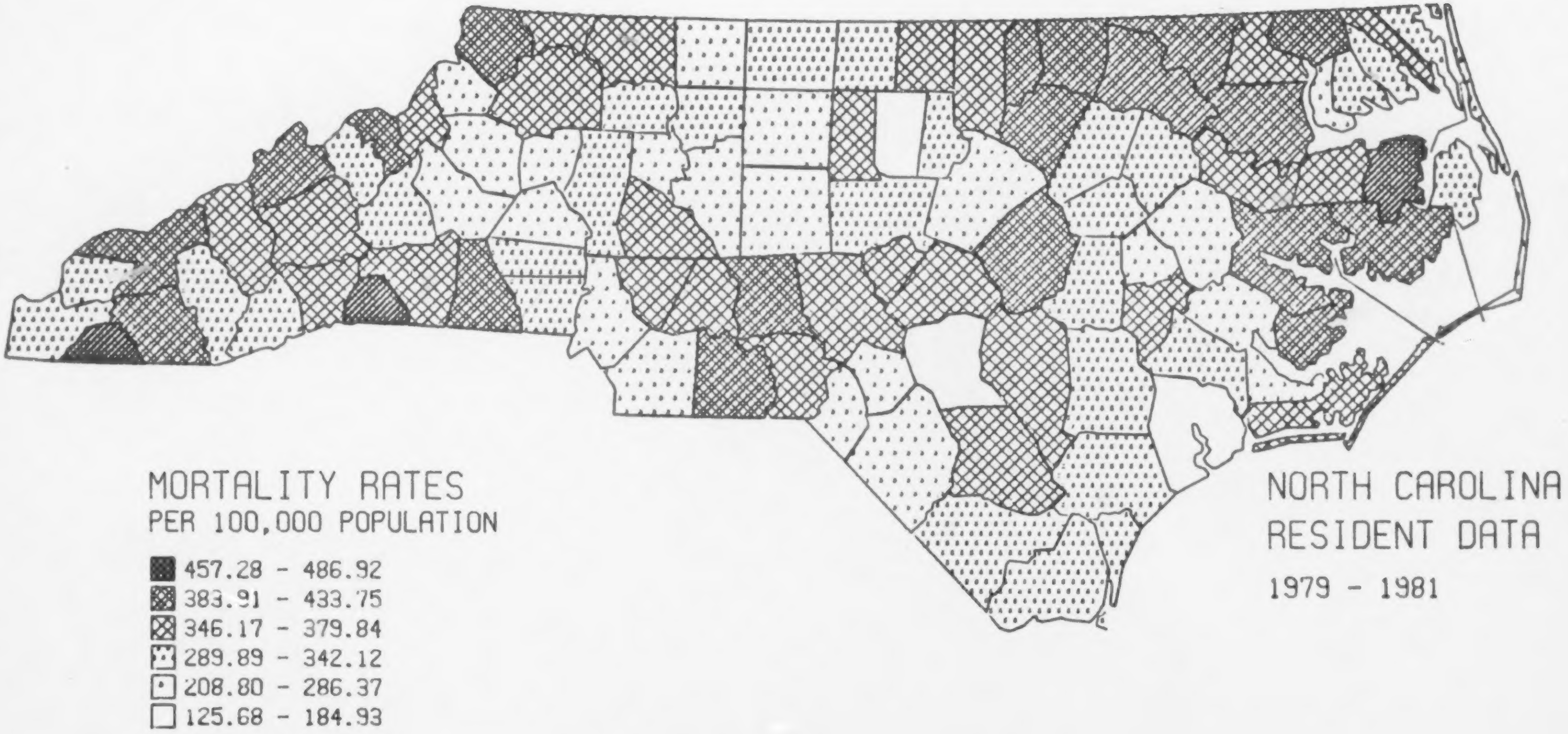

MORTALITY RATES
PER 100,000 POPULATION
457.28 - 486.92
383.91 - 433.75
346.17 - 379.84
289.89 - 342.12
208.80 - 286.37
125.68 - 184.93
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 3.A

DISEASES OF THE HEART

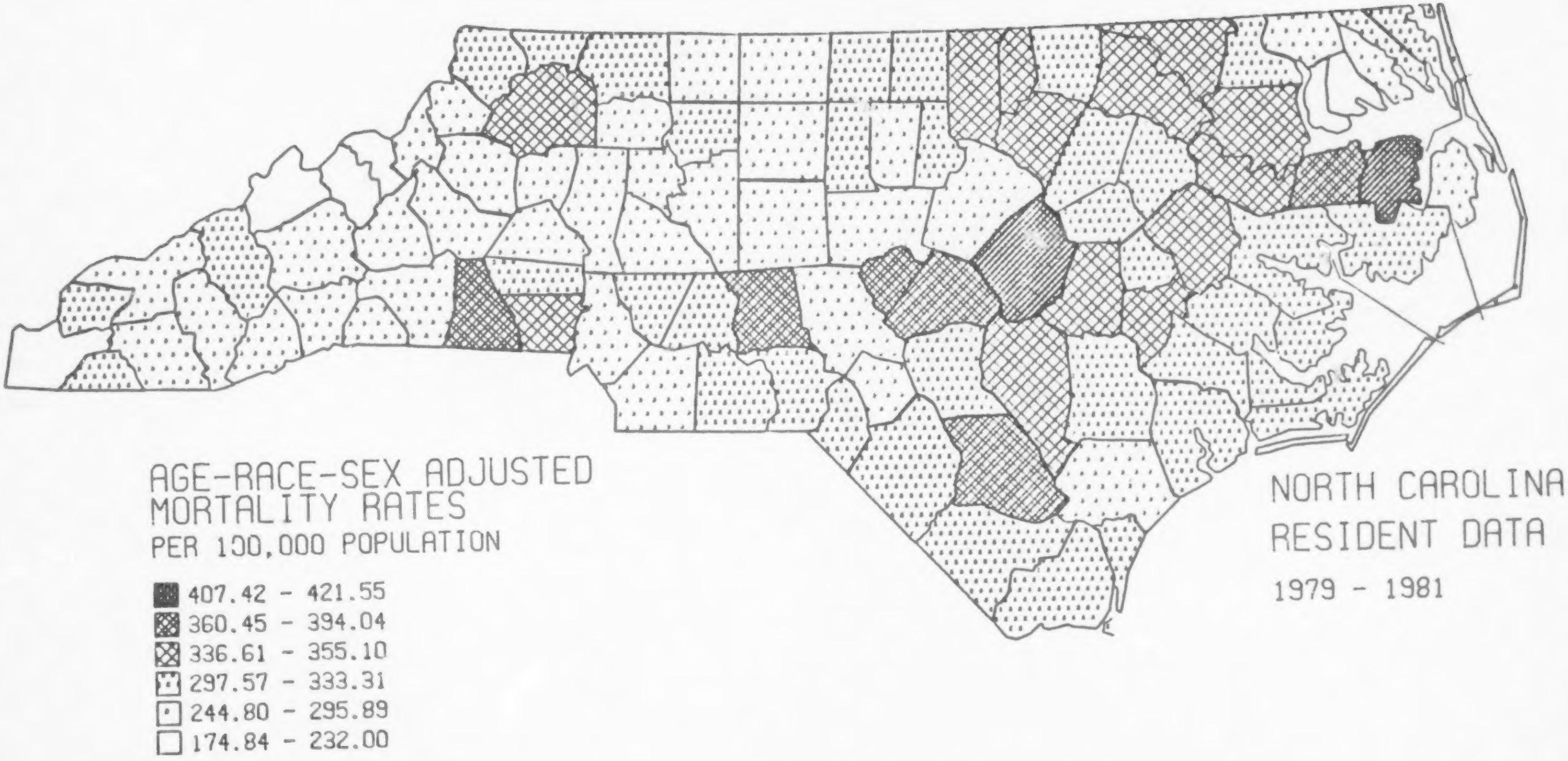

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
407.42 - 421.55
360.45 - 394.04
336.61 - 355.10
297.57 - 333.31
244.80 - 295.89
174.84 - 232.00
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 3.B

ACUTE MYOCARDIAL INFARCTION

An estimated 3,400 Americans suffer heart attacks each day. In 1981 over 292,000 of these attacks in the United States were fatal, a provisional rate of 127.5 deaths per 100,000 population (2). North Carolina's 1981 rate was higher at 135.7. Both the unadjusted and age-adjusted rates for acute myocardial infarction exceeded the corresponding United States rates.

A total of 8,091 fatal heart attacks occurred to North Carolinians in 1981, and over 60 percent of those decedents were males. As shown by age-adjusted rates for the 1979-81 period, males had a much greater risk than females. White males had the highest rate (164.4), followed by nonwhite males (134.8), nonwhite females (61.7), and white females (56.9). The risk of death from acute myocardial infarction declined from the 1974-78 to the 1979-81 period for each race-sex group with white males experiencing the largest percent decline (19%).

Risk Factors

As is the case with heart disease in general, the risk of fatal heart attacks is correlated with high cholesterol, cigarette smoking, sex (males have higher rates of heart attacks), and low levels of exercise (1,3-6). Also, hypertension and atherosclerosis are known to be related conditions (3,4) as indicated by the high number of mentions of these two conditions on death certificates that also mention acute myocardial infarction (see Table 31 in Section X). Improvements in diagnosis and treatment of these conditions as well as decreased exposure to other risk factors and improved medical services (i.e., establishment of coronary care and intensive care units and better training among emergency medical services personnel) have contributed to declines in fatal heart attacks (1,4).

Geographic Patterns

As shown in Figure 4.A, high rates (Levels 4-6) are dispersed throughout the state with three noticeable areas of high rates--the northeast, southeast, and southcentral areas of the state. Low rates are found in the northcentral and western portions. After adjusting for age, race, and sex, the clusters of counties with high rates persist, most notably in the southcentral and southeastern portions of the state. The western counties continue to have relatively low rates.

Procedures described in Section II were used to test statistically whether the above contiguous areas with high unadjusted rates cluster geographically. As shown in the map below, four significant geographic clusters of high mortality from acute myocardial infarction exist; however, these clusters are not very strong, and when adjustments are made for age, race, and sex, no statistically significant clusters remain.

ACUTE MYOCARDIAL INFARCTION

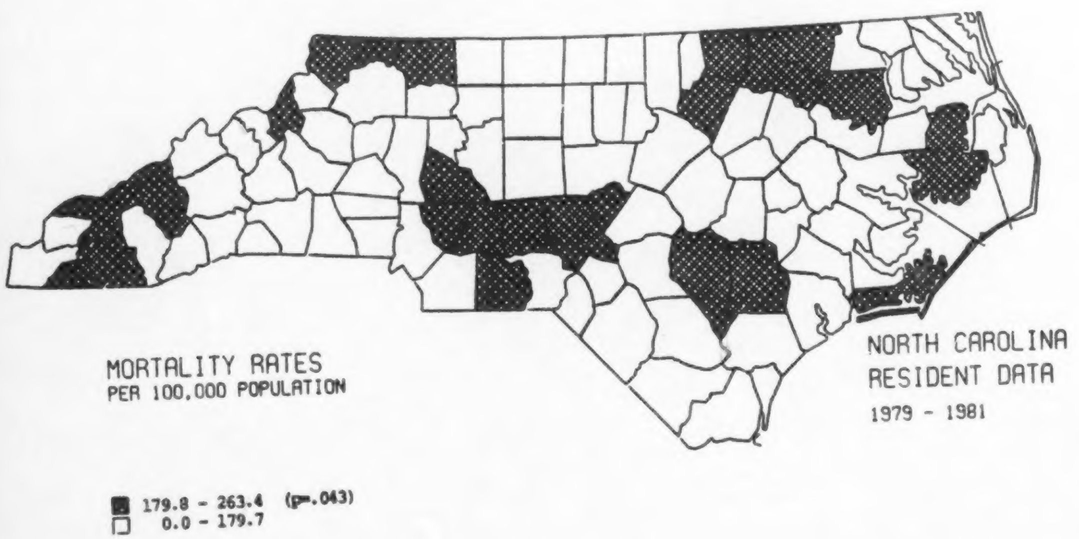


TABLE 4

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

ACUTE MYOCARDIAL INFARCTION

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	8091	135,74	24177	136,81	136.81
REGIONS					
DHR I WESTERN	2963	145,01	8834	146,18	133.53
DHR II N. CENTRAL	1773	139,17	5416	143,03	136.19
DHR III S. CENTRAL	1615	117,27	4853	119,02	140.90
DHR IV EASTERN	1740	137,41	5074	134,77	143.00
HSA I WESTERN	1526	147,87	4676	152,98	130.99
HSA II PIEDMONT	1525	135.39	4626	138,20	132.68
HSA III S. PIEDMONT	1437	142,09	4158	139,22	139.76
HSA IV CAPITAL	945	113,78	2914	118,55	130.70
HSA V CARDINAL	1274	139,77	3727	138,09	158.20
HSA VI EASTERN	1384	131,94	4076	130,45	140.75
COUNTIES					
1 ALAMANCE	159	159,52	505	169,35	149.06
2 ALEXANDER	42	164,42	85	112,73	133.34
3 ALLEGHANY	18	185,10	62	214,15	127.68
4 ANSON	57	222,64	156	203,62	169.27
5 ASHE	43	189,17	131	195,73	199.84
6 AVERY	28	189.36	92	211,33	178.75
7 BEAUFORT	59	142.56	206	168,62	144.90
8 BERTIE	32	150,79	127	200,74	177.97
9 BLADEN	54	175,61	164	179,33	190.44
10 BRUNSWICK	60	161,20	173	159,30	148.44
11 BUNCOMBE	241	148.99	727	150,52	116.71
12 BURKE	96	131.00	307	141,23	139.82
13 CABARRUS	176	200,33	535	207,18	181.72
14 CALDWELL	77	112,96	263	129,82	137.42
15 CAMDEN	8	140,86	25	144,33	126.15
16 CARTERET	72	167,82	226	180,41	154.94
17 CASWELL	22	104,71	89	143,19	149.67
18 CATAWBA	156	146,14	500	158,43	163.08
19 CHATHAM	53	155,87	167	165,47	148.92
20 CHEROKEE	25	130,08	92	161,93	104.25
21 CHOWAN	14	110,77	44	116,24	89.06
22 CLAY	17	244,35	53	263,43	219.18*
23 CLEVELAND	159	189.65	445	178,12	170.83
24 COLUMBUS	111	213,65	272	176,63	177.22
25 CRAVEN	68	94,66	188	87,85	114.11
26 CUMBERLAND	166	66,09	540	72,59	144.49
27 CURRITUCK	16	141,46	38	112,14	97.74
28 DARE	14	96,81	51	124,98	90.43
29 DAVIDSON	151	132,85	422	124,68	121.36
30 DAVIE	30	113,07	108	142,85	131.06
31 DUPLIN	75	183.58	238	194,33	183.89
32 DURHAM	177	114,35	578	125,83	133.51
33 EDGECOMBE	76	135,41	221	131,22	142.94
34 FORSYTH	333	134,89	993	135,44	133.80
35 FRANKLIN	76	248,85	231	255,60	211.78
36 GASTON	276	168,06	818	167,98	170.19
37 GATES	20	222.96	42	158,74	123.14
38 GRAHAM	10	141.80	32	149,62	161.94
39 GRANVILLE	47	136.01	150	146,46	141.98
40 GREENE	15	93,29	55	114,99	135.63
41 GUILFORD	357	112,29	1142	120,13	120.93

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
ACUTE MYOCARDIAL INFARCTION CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	117	211.06	300	180.46	170.48
43 HARNETT	90	149.11	264	147.09	154.42
44 HAYWOOD	93	198.23	253	181.08	150.04
45 HENDERSON	84	138.60	262	148.30	94.35
46 HERTFORD	50	212.64	118	167.93	142.05
47 HOKE	22	103.76	66	107.66	138.33
48 HYDE	16	266.66	39	218.04	187.82
49 IREDELL	141	167.54	408	164.03	147.68
50 JACKSON	30	113.37	100	129.02	127.54
51 JOHNSTON	83	115.53	275	129.19	123.76
52 JONES	7	72.11	34	117.18	117.69
53 LEE	65	175.24	206	187.64	189.40
54 LENOIR	97	161.65	313	174.63	177.21
55 LINCOLN	81	188.77	224	176.85	181.34
56 MCDOWELL	56	156.13	161	152.89	137.90
57 MACON	41	193.35	111	179.89	114.96
58 MADISON	27	154.09	84	165.13	99.81
59 MARTIN	36	136.59	79	100.97	100.02
60 MECKLENBURG	364	88.42	1044	86.07	100.26
61 MITCHELL	20	137.78	74	170.63	101.78
62 MONTGOMERY	53	233.43	163	243.43	208.26
63 MOORE	86	167.68	309	204.04	156.66
64 NASH	119	174.01	299	147.47	147.85
65 NEW HANOVER	156	147.73	445	142.98	146.50
66 NORTHAMPTON	52	231.17	130	191.53	165.71
67 ONSLOW	56	49.36	187	55.04	132.24
68 ORANGE	64	82.63	175	75.78	100.99
69 PAMLICO	11	105.43	55	177.65	138.56
70 PASQUOTANK	39	137.18	97	113.95	107.07
71 PENDER	29	128.82	108	162.28	145.43
72 PERQUIMANS	15	155.95	38	132.66	99.32
73 PERSON	31	105.14	125	142.80	131.69
74 PITT	98	106.37	279	102.79	135.16
75 POLK	20	149.07	68	173.77	113.15
76 RANDOLPH	123	132.15	389	141.51	140.83
77 RICHMOND	102	222.45	240	176.11	162.69
78 ROBESON	144	139.95	410	134.22	157.69
79 ROCKINGHAM	124	146.50	379	151.09	136.73
80 ROWAN	203	202.53	561	188.55	148.09
81 RUTHERFORD	86	157.67	262	162.04	131.27
82 SAMPSON	99	198.53	280	188.32	174.38
83 SCOTLAND	45	138.21	137	141.12	162.41
84 STANLY	94	194.86	285	197.25	168.98
85 STOKES	51	149.76	143	143.52	153.11
86 SURRY	128	213.74	323	181.43	152.36
87 SWAIN	21	202.70	59	190.42	146.69
88 TRANSYLVANIA	35	146.63	101	143.10	135.40
89 TYRRELL	6	145.17	26	214.57	179.34
90 UNION	102	141.52	283	134.12	150.69
91 VANCE	57	154.87	190	172.65	154.36
92 WAKE	255	82.87	723	79.89	105.93
93 WARREN	37	227.60	94	192.14	163.64
94 WASHINGTON	12	81.67	41	92.31	94.87
95 WATAUGA	31	94.89	131	136.90	159.59
96 WAYNE	117	120.06	350	119.90	145.03
97 WILKES	53	89.53	161	91.02	86.28
98 WILSON	67	105.87	230	121.79	130.40
99 YADKIN	47	161.95	133	155.10	126.98
100 YANCEY	17	113.25	60	133.61	81.26

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

ACUTE MYOCARDIAL INFARCTION

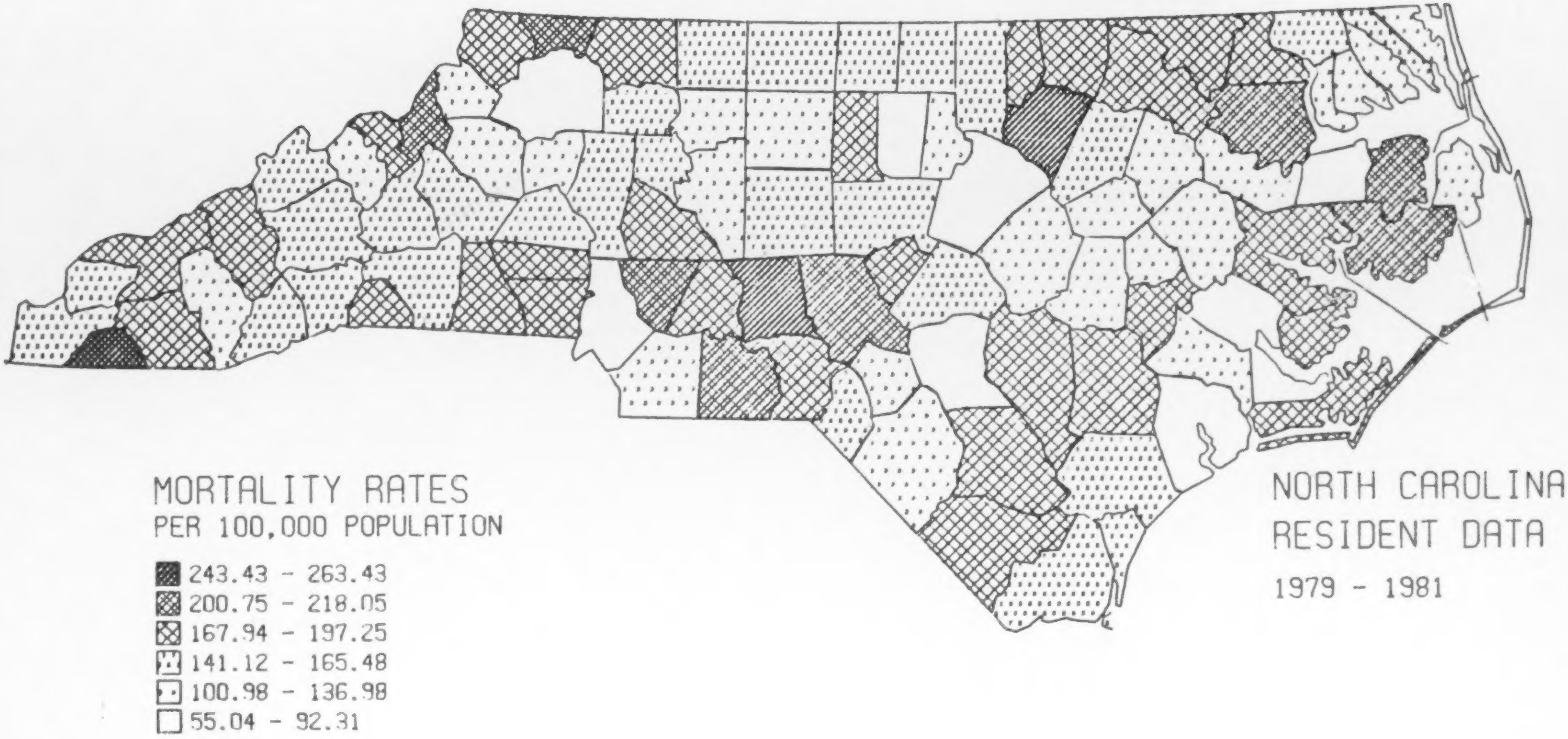

MORTALITY RATES
PER 100,000 POPULATION
▩ 243.43 - 263.43
▩ 200.75 - 218.05
▩ 167.94 - 197.25
▩ 141.12 - 165.48
▩ 100.98 - 136.98
☐ 55.04 - 92.31
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 4.A

ACUTE MYOCARDIAL INFARCTION

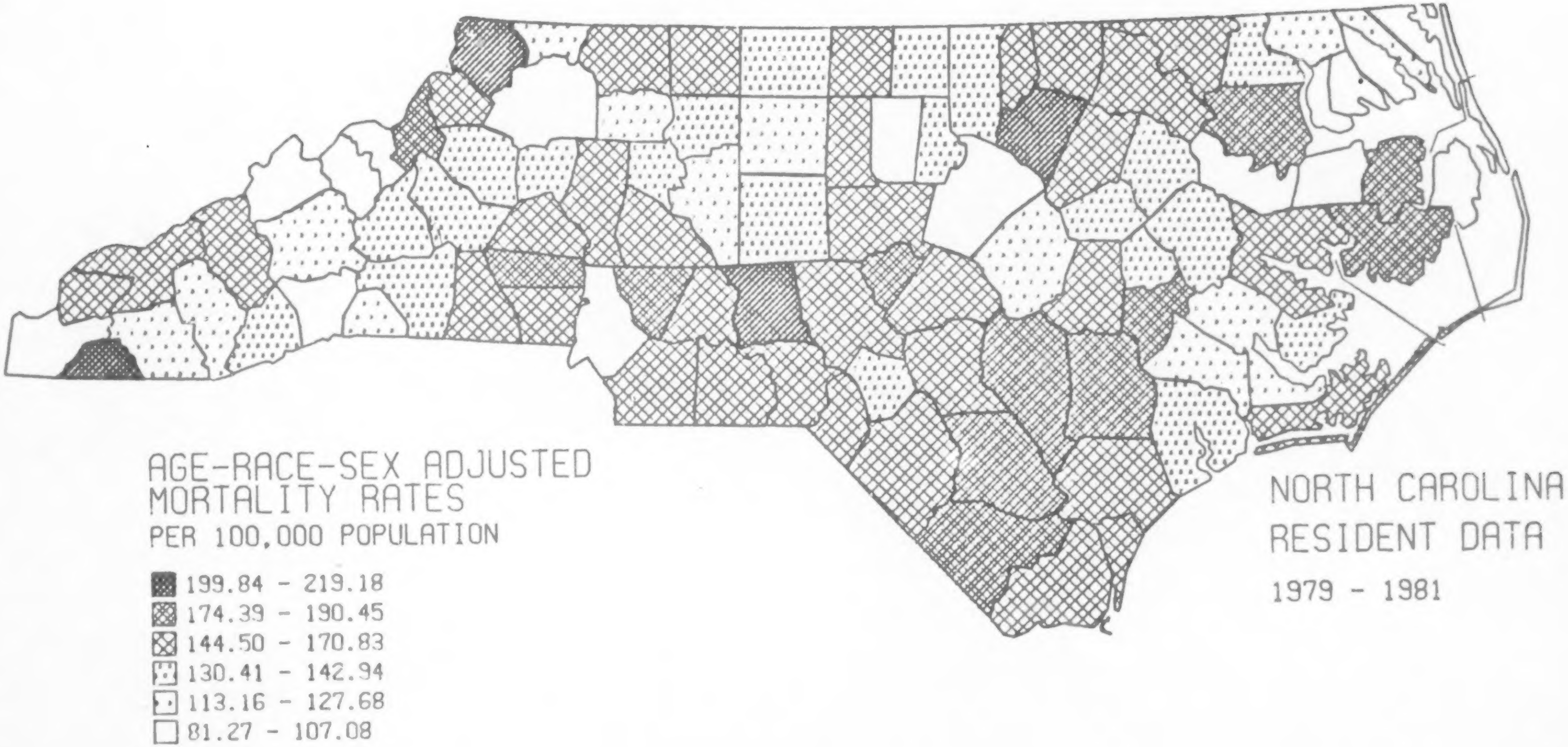

AGE-RACE-SEX ADJUSTED MORTALITY RATES
PER 100,000 POPULATION
▩ 199.84 - 219.18
▩ 174.39 - 190.45
▩ 144.50 - 170.83
▨ 130.41 - 142.94
▨ 113.16 - 127.68
☐ 81.27 - 107.08
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 4.B

OTHER ISCHEMIC HEART DISEASE

During 1981, almost 97 percent of the 5,036 North Carolina deaths due to ischemic heart disease other than acute myocardial infarction involved chronic forms of ischemic heart disease. The overall death rate was 84.5 per 100,000 population, up 4.4 percent from the 1979 rate of 80.9. Caution must be exercised in discussing any pre-1979 rates for other ischemic heart disease because of changes in the ICD codes. As described in Section II, these changes made it necessary to correct the 1974-78 rates to make comparisons with 1979-81. A close examination of the 1979-81 age-adjusted rates and the corrected 1974-78 rates reveals a decline of 15 percent in the overall rate. Each of the four race-sex groups experienced a decline, the largest among nonwhite females (33%) and the smallest among white males (3.4%). The 1979-81 age-adjusted rates were as follows: 78.2 for white males, 33.8 for white females, 83.5 for nonwhite males, and 45.0 for nonwhite females. Along with the reduction in rates, the gaps in risk declined between nonwhite and white males (from a nonwhite/white ratio of 1.32 to 1.07) and between nonwhite and white females (from a ratio of 1.59 to 1.33).

Geographic Patterns

As exhibited in Figure 5.A, the 1979-81 rates appear to be somewhat higher in the northeast, but no strong patterns are evident. Wilkes, Polk, and Johnston counties had the highest unadjusted mortality rates for other ischemic heart disease in the 1979-81 period. Adjusting for age, race, and sex, Figure 5.B shows an apparent band of high-rate counties (Levels 4-6) in the eastern portion of the state and comparatively low rates in the higher elevations of the west.

The eastern cluster of high adjusted rates was found to be statistically significant based on procedures described in Section II. Among the 18 counties with the highest rates, the map below shows a significant geographic cluster of seven counties from Pitt to Cumberland. As other high-rate counties are included (up to the highest 35 counties), most are consistently adjacent to this central cluster of seven counties in the east, making an even stronger cluster of eastern counties with high adjusted mortality rates from other ischemic heart disease. Only five of the 35 high-rate counties are in the west.

OTHER ISCHEMIC HEART DISEASES

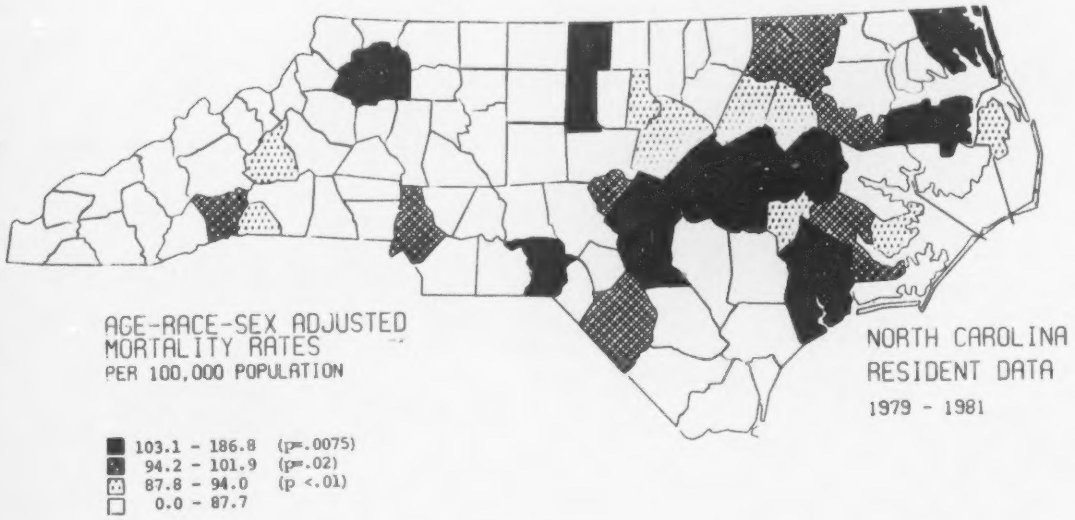

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
■ 103.1 - 186.8 (p=.0075)
▦ 94.2 - 101.9 (p=.02)
⚃ 87.8 - 94.0 (p <.01)
☐ 0.0 - 87.7
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

TABLE 5

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

OTHER FORMS OF ISCHEMIC HEART DISEASE

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	5036	84.48	14503	82,07	82.07
REGIONS					
DHR I WESTERN	1793	87.75	5114	84,62	78.55
DHR II N. CENTRAL	1119	87.83	3066	80,97	77.28
DHR III S. CENTRAL	1030	74.79	3169	77,72	92.46
DHR IV EASTERN	1094	86.39	3154	83,77	87.48
HSA I WESTERN	985	95.45	2785	91,11	74.01
HSA II PIEDMONT	1010	89.67	2769	82,72	80.87
HSA III S. PIEDMONT	808	79.89	2329	77,98	80.74
HSA IV CAPITAL	686	82.59	2001	81,40	88.75
HSA V CARDINAL	629	69.00	1935	71,69	83.18
HSA VI EASTERN	918	87.51	2684	85,90	91.05
COUNTIES					
1 ALAMANCE	147	147.48	368	123,40	113.47
2 ALEXANDER	19	74.38	59	78,25	77.56
3 ALLEGHANY	6	61.70	14	48,35	24.89
4 ANSON	24	93.74	76	99,20	76.23
5 ASHE	24	105.58	60	89,64	48.91
6 AVERY	8	54.10	24	55,13	42.58
7 BEAUFORT	41	99.06	93	76,12	67.18
8 BERTIE	12	56.54	41	64,80	62.00
9 BLADEN	19	61.79	59	64,51	70.28
10 BRUNSWICK	31	83.28	76	69,98	67.79
11 BUNCOMBE	192	118.70	566	117,19	83.88
12 BURKE	59	80.51	163	74,98	85.80
13 CABARRUS	55	62.60	171	66,22	60.17
14 CALDWELL	54	79.22	136	67,13	73.94
15 CAMDEN	7	123.26	25	144,33	127.98
16 CARTERET	31	72.25	61	48,69	44.24
17 CASWELL	19	90.43	71	114,23	115.33
18 CATAWBA	54	50.58	184	58,30	60.57
19 CHATHAM	29	85.28	84	83,23	70.85
20 CHEROKEE	15	78.05	35	61,60	36.22
21 CHOWAN	4	31.65	31	81,90	65.03
22 CLAY	3	43.12	12	59,64	32.33
23 CLEVELAND	48	57.25	132	52,83	48.66
24 COLUMBUS	52	100.09	139	90,26	82.75
25 CRAVEN	49	68.21	145	67,75	95.28
26 CUMBERLAND	101	40.21	338	45,43	103.19
27 CURRITUCK	17	150.30	45	132,80	125.71
28 DARE	9	62.23	35	85,77	87.90
29 DAVIDSON	92	80.94	273	80,66	82.57
30 DAVIE	20	75.38	57	75,39	68.46
31 DUPLIN	29	70.98	91	74,30	72.05
32 DURHAM	144	93.03	403	87,73	87.80
33 EDGECOMBE	56	99.77	157	93,21	92.90
34 FORSYTH	222	89.92	588	80,20	77.99
35 FRANKLIN	23	75.31	63	69,70	59.09
36 GASTON	136	82.81	381	78,24	85.60
37 GATES	6	66.88	30	113,39	75.44
38 GRAHAM	4	56.72	12	56,10	68.09*
39 GRANVILLE	20	57.88	70	68,34	61.04
40 GREENE	16	99.51	43	89,90	103.57
41 GUILFORD	292	91.84	809	85,10	85.83

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
OTHER FORMS OF ISCHEMIC HEART DISEASE CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	64	115.45	196	117.90	94.22
43 HARNETT	63	104.38	198	110.32	115.67
44 HAYWOOD	52	110.83	146	104.50	80.46
45 HENDERSON	94	155.10	259	146.60	99.31
46 HERTFORD	16	68.04	38	54.08	51.53
47 HOKE	5	23.58	26	42.41	49.85
48 HYDE	7	116.66	13	72.68	53.42
49 IREDELL	82	97.43	224	90.05	82.55
50 JACKSON	22	83.14	49	63.22	54.83
51 JOHNSTON	121	168.42	375	176.17	170.75
52 JONES	8	82.41	30	103.40	112.54
53 LEE	30	80.88	107	97.46	96.33
54 LENOIR	60	99.99	164	91.50	92.31
55 LINCOLN	26	60.59	76	60.00	56.07
56 MCDOWELL	47	131.03	108	102.56	92.00
57 MACON	22	103.75	71	115.06	76.11
58 MADISON	19	108.43	46	90.43	51.11
59 MARTIN	26	98.64	88	112.48	100.53
60 MECKLENBURG	343	83.32	1025	84.50	97.56
61 MITCHELL	8	55.11	35	80.70	45.05
62 MONTGOMERY	17	74.87	58	86.62	70.91
63 MOORE	47	91.63	134	88.48	64.60
64 NASH	52	76.04	168	82.86	88.79
65 NEW HANOVER	84	79.55	207	66.51	68.69
66 NORTHAMPTON	31	137.81	89	131.12	101.82
67 ONSLOW	47	41.42	141	41.50	107.02
68 ORANGE	45	58.10	115	49.80	65.58
69 PAMLICO	15	143.77	38	122.74	93.93
70 PASQUOTANK	30	105.52	99	116.30	106.28
71 PENDER	9	39.98	48	72.12	64.94
72 PERQUIMANS	8	83.17	27	94.26	61.79
73 PERSON	15	50.87	29	33.13	30.69
74 PITT	84	91.17	249	91.74	109.99
75 POLK	21	156.52	69	176.33	93.28
76 RANDOLPH	66	70.91	164	59.65	62.70
77 RICHMOND	47	102.50	164	120.34	114.07
78 ROBESON	78	75.80	248	81.19	99.56
79 ROCKINGHAM	71	83.88	184	73.35	67.87
80 ROWAN	103	102.76	243	81.67	64.41
81 RUTHERFORD	56	102.67	137	84.73	64.10
82 SAMPSON	43	86.23	110	73.98	66.49
83 SCOTLAND	9	27.64	54	55.62	71.32
84 STANLY	33	68.41	109	75.44	68.67
85 STOKES	15	44.04	61	61.22	69.52
86 SURRY	49	81.82	141	79.20	59.72
87 SWAIN	7	67.56	24	77.45	49.96
88 TRANSYLVANIA	12	50.27	40	56.67	38.63
89 TYRRELL	5	120.97	18	148.55	125.08
90 UNION	30	41.62	100	47.39	53.33
91 VANCE	32	86.94	79	71.78	64.51
92 WAKE	208	67.59	620	68.51	92.77
93 WARREN	19	116.87	56	114.46	81.41
94 WASHINGTON	15	102.09	50	112.57	133.72
95 WATAUGA	10	30.61	31	32.39	65.01*
96 WAYNE	111	113.90	271	92.84	106.39
97 WILKES	109	184.14	330	186.56	186.70
98 WILSON	62	97.96	208	110.14	111.93
99 YADKIN	17	58.58	53	61.80	60.50
100 YANCEY	20	133.24	43	95.75	55.29

* SEE SECTION II

OTHER ISCHEMIC HEART DISEASE

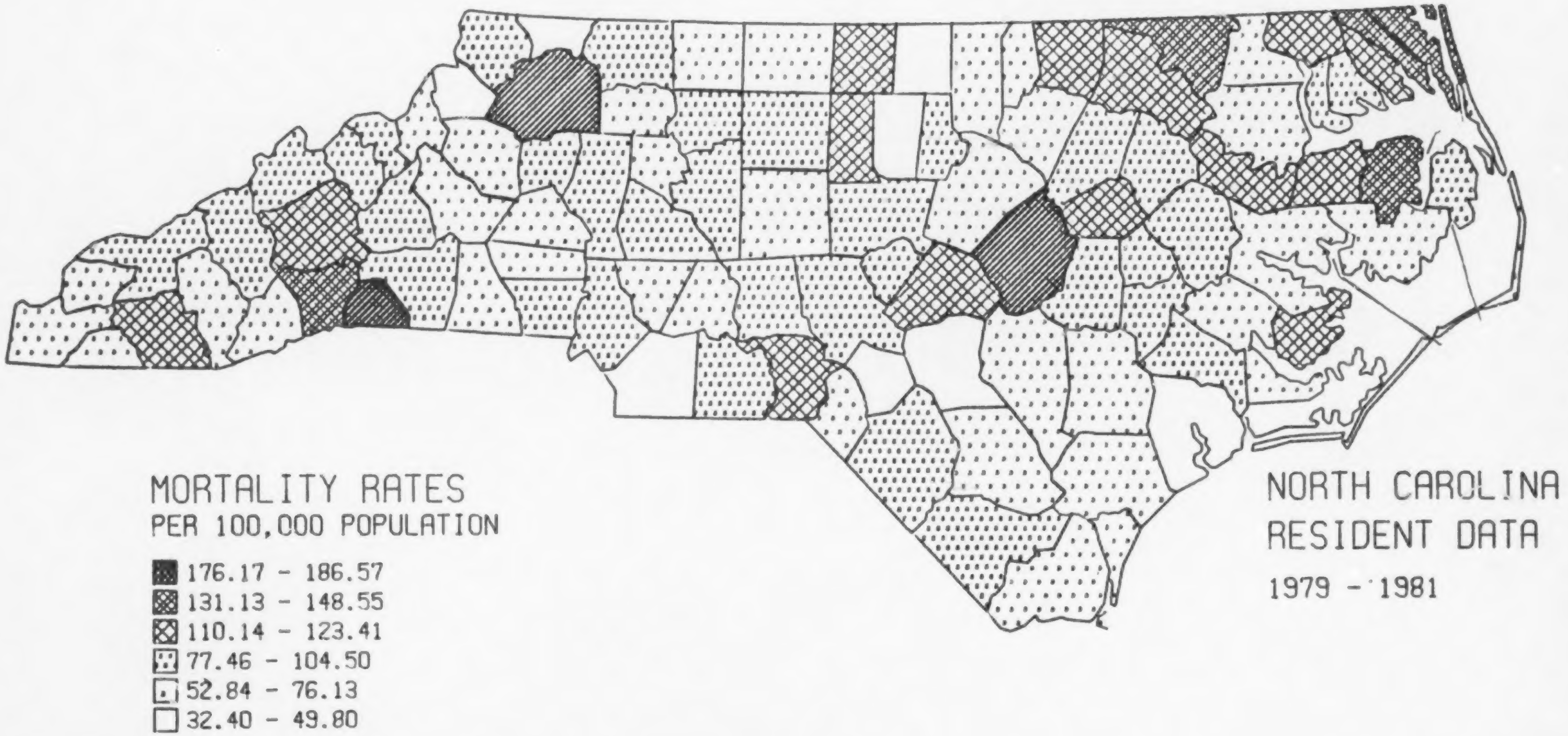

MORTALITY RATES
PER 100,000 POPULATION
▩ 176.17 - 186.57
▩ 131.13 - 148.55
▨ 110.14 - 123.41
⠿ 77.46 - 104.50
⠂ 52.84 - 76.13
☐ 32.40 - 49.80
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 5.A

OTHER ISCHEMIC HEART DISEASE

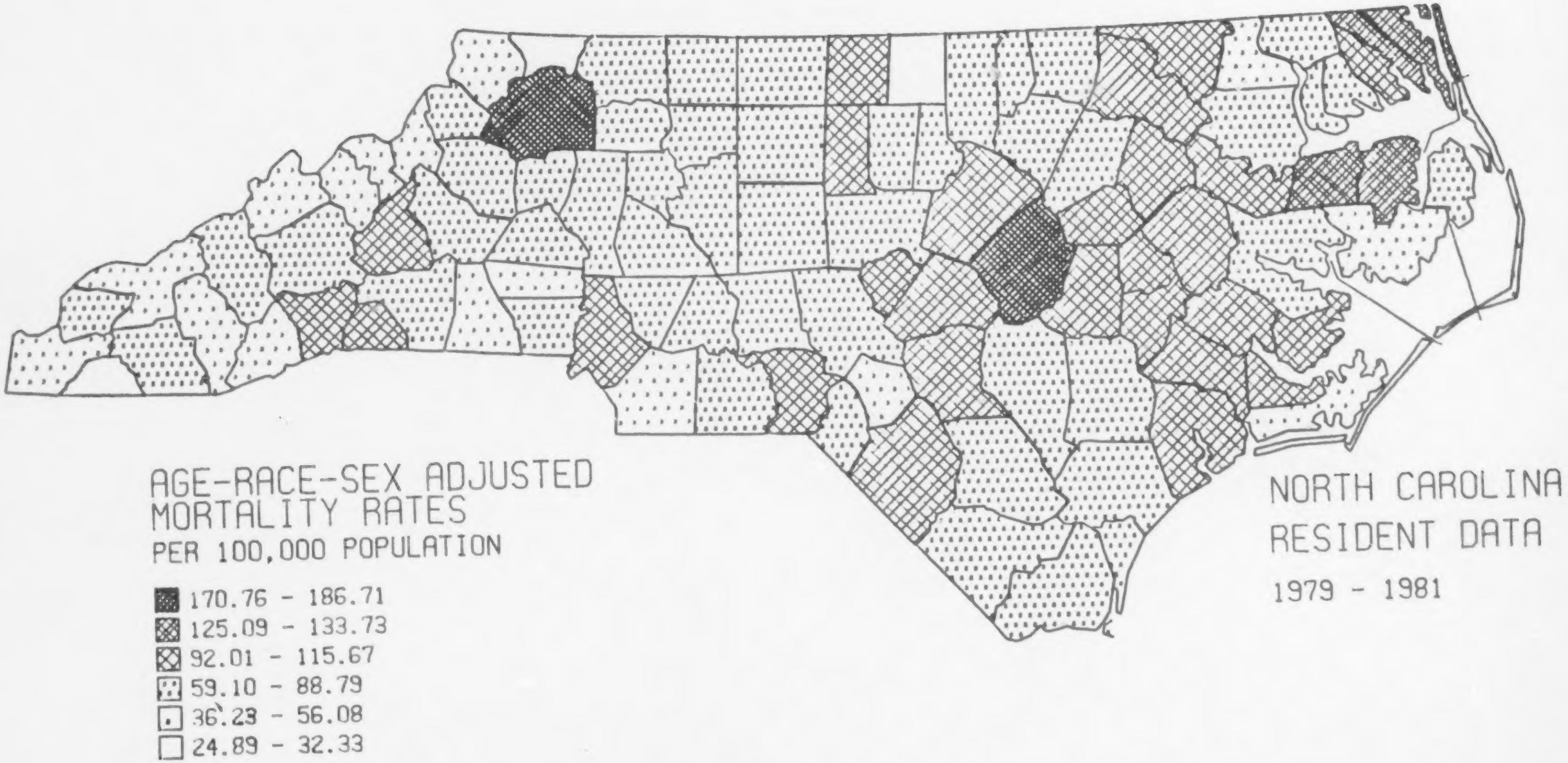

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
170.76 - 186.71
125.09 - 133.73
92.01 - 115.67
59.10 - 88.79
36.23 - 56.08
24.89 - 32.33
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 5.B

HYPERTENSION

Hypertension, or high blood pressure, is relatively common in the United States today. It was estimated in the 1971-74 period that nearly 1 out of 5 Americans ages 18-74 had elevated blood pressure (7). This estimate does not include persons who had their hypertension under control through the use of medication or diet, nor does it include persons with borderline hypertension or institutionalized persons with hypertension. In each of the years 1976 through 1979 it was estimated through the North Carolina Citizen Survey that close to 20 percent of North Carolina adults had been diagnosed by a doctor as having hypertension (8). Hypertension is more prevalent among blacks and more frequently found among older people than young people. At the younger ages, the prevalence of hypertension is higher among men, whereas at older ages it is higher for women, with the crossover occurring at earlier ages for blacks (7).

In 1970 the corrected (for reasons described in Section II) North Carolina death rate for hypertension as the underlying cause was 6.2 per 100,000 population, while in 1981 this rate was 4.0, indicating a substantial decrease over the decade. Part of this decrease could, however, reflect changes in death certificate coding practices.

The following table compares the age-adjusted underlying cause hypertension death rate for four race-sex groups between the periods 1974-78 and 1979-81. The earlier rate has been adjusted for both changes in the ICD and changes in population bases to correct for underestimates. These rates also show a decline over time, but what stands out are the differences among the race-sex groups. The nonwhite death rates are over four times as large as the white rates for the same sex, and the rate for nonwhite males is seven times the rate for white females. Though all of the rates declined somewhat over time, the racial differential has changed very little.

Race-Sex-Specific Age-Adjusted
Hypertension Death Rates, 1974-78 and 1979-81
(Standard = 1940 U.S. Census Population)

	1974-78	1979-81
Total	3.3	2.9
White Males	2.5	2.2
White Females	1.5	1.4
Nonwhite Males	10.9	9.7
Nonwhite Females	7.5	6.6

The 1979-81 death rate for hypertension as the underlying cause showed a steady increase with age for all four of the race-sex groups to a high in the 85-and-over age groups of 76.7 for white males, 75.3 for white females, 124.9 for nonwhite males, and 82.3 for nonwhite females. The racial differential is most pronounced between ages 25 and 64, where the nonwhite death rates are about ten times the comparable white rates for both sexes.

Hypertension rarely kills by itself, but more often contributes to other causes of death, particularly heart disease and stroke. Thus hypertension appears as the underlying or primary cause of death relatively infrequently on the death certificate. So in addition to looking at trends and differentials in the underlying cause death rate, it is important to examine other mentions of hypertension on the death certificate.

In 1981 there were 240 deaths with hypertension as the underlying cause, while 4,310 death certificates had a mention of hypertension. This suggests that around 9 percent of all North Carolina deaths in 1981 involved hypertension, though just how accurately this condition is reflected on the death certificate is unknown. Of these 4,310 deaths with mention of hypertension, 60.1 percent had heart disease as the underlying cause of death, 17.3 percent had cerebrovascular disease as the underlying cause, and 3.3 percent had diabetes. Around 15 percent of all deaths attributed to heart disease, cerebrovascular disease, and diabetes had a mention of hypertension. Nonwhites had roughly twice as many death certificate mentions of hypertension per 100,000 population as whites.

Risk Factors

People are often unaware that they have high blood pressure because there are no distinctive physical or psychological symptoms. The cause of the most common form of hypertension is basically unknown, though smoking, high sodium diets, family history, obesity, age, physical inactivity, and stress are known to be contributing factors. Blacks are more prone to hypertension than whites, but diet, stress, and other factors may underlie this racial association. It has been demonstrated that treatment and control of existing high blood pressure reduces the risk of subsequent stroke as well as heart and renal failure (1).

The risk of hypertension is also associated with certain characteristics of a modern society. "The average blood pressure trend by age in different societies is roughly proportional to their degree of modern social transformation, in particular to the elevation of disruptive migration, labor market competition/unemployment, and overwork characteristic of capitalist modernization. Members of untouched primitive societies or traditional hierarchical agricultural civilizations have blood pressures at low levels through the life span; those in developed societies have sharply rising average blood pressure trends by age which diverge from primitive levels during adolescence or labor market entry ages" (9). Within the constraints of a modern society, North Carolinians must concentrate on lifestyle and medical strategies for reducing hypertension.

Geographic Patterns

No attempt is made here to assess county-by-county geographic variations in the underlying hypertension death rate because the number of such deaths in the 1979-81 period averages only 7.1 per county and at least 20 deaths are needed to produce a reasonably stable rate. Data from the section on "Multiple Conditions Present at Death" do suggest that the eastern region of the state has a substantially higher rate of hypertension mentions than other areas of the state. Since this region has a large nonwhite population, and the prevalence of hypertension is higher among nonwhites, this rate is expected to be somewhat higher. But even the race-specific rates in the eastern region are considerably higher than for North Carolina as a whole, and so the higher overall rates appear to be due also to a higher risk of hypertension in eastern North Carolina, though it is possible that death certificate recording practices contribute to this difference.

In the section of this volume on "Multiple Conditions Present at Death," there are county maps showing 1979-81 hypertension mentions per 100,000 population, with an associated analysis. An average of 127 hypertension mentions per county in the 1979-81 period makes these rates much more stable than those for hypertension as the underlying cause, though differences in physician coding practices may complicate this county-by-county assessment.

TABLE 6

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

HYPERTENSION WITH OR WITHOUT RENAL DISEASE

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	240	4.02	713	4.03	4.03
REGIONS					
DHR I WESTERN	69	3.37	216	3.57	3.95
DHR II N. CENTRAL	58	4.55	148	3.90	3.84
DHR III S. CENTRAL	53	3.84	175	4.29	4.34
DHR IV EASTERN	60	4.73	174	4.62	4.05
HSA I WESTERN	33	3.19	99	3.23	3.53
HSA II PIEDMONT	48	4.26	115	3.43	3.59
HSA III S. PIEDMONT	36	3.55	117	3.91	4.32
HSA IV CAPITAL	26	3.13	104	4.23	4.00
HSA V CARDINAL	47	5.15	134	4.96	4.76
HSA VI EASTERN	50	4.76	144	4.60	4.09
COUNTIES					
1 ALAMANCE	4	4.01	10	3.35	3.11
2 ALEXANDER	2	7.82	3	3.97	6.97
3 ALLEGHANY	0	0.00	1	3.45	2.48
4 ANSON	6	23.43	12	15.66	11.43
5 ASHE	0	0.00	0	0.00	0.00
6 AVERY	1	6.76	1	2.29	1.53
7 BEAUFORT	6	14.49	13	10.64	8.51
8 BERTIE	1	4.71	3	4.74	4.78
9 BLADEN	1	3.25	4	4.37	3.15
10 BRUNSWICK	3	8.06	4	3.68	3.91
11 BUNCOMBE	8	4.94	23	4.76	4.02
12 BURKE	5	6.82	9	4.14	4.43
13 CABARRUS	4	4.55	7	2.71	2.66
14 CALDWELL	0	0.00	5	2.46	2.27
15 CAMDEN	1	17.60	1	5.77	8.83
16 CARTERET	2	4.66	4	3.19	2.41
17 CASWELL	0	0.00	1	1.60	0.97
18 CATAWBA	4	3.74	8	2.53	2.89
19 CHATHAM	0	0.00	6	5.94	4.73
20 CHEROKEE	0	0.00	3	5.28	2.75
21 CHOWAN	1	7.91	4	10.56	6.04
22 CLAY	0	0.00	0	0.00	0.00
23 CLEVELAND	0	0.00	5	2.00	1.96
24 COLUMBUS	3	5.77	11	7.14	5.47
25 CRAVEN	2	2.78	7	3.27	4.20
26 CUMBERLAND	9	3.58	32	4.30	8.31
27 CURRITUCK	1	8.84	1	2.95	2.74
28 DARE	1	6.91	1	2.45	2.21
29 DAVIDSON	6	5.27	9	2.65	3.76
30 DAVIE	1	3.76	1	1.32	2.19
31 DUPLIN	2	4.89	3	2.44	1.88
32 DURHAM	4	2.58	17	3.70	3.29
33 EDGECOMBE	1	1.78	5	2.96	1.90
34 FORSYTH	8	3.24	29	3.95	3.82
35 FRANKLIN	3	9.82	7	7.74	5.84
36 GASTON	1	0.60	16	3.28	3.84
37 GATES	0	0.00	0	0.00	0.00
38 GRAHAM	0	0.00	1	4.67	3.57
39 GRANVILLE	0	0.00	7	6.83	4.52
40 GREENE	4	24.87	6	12.54	9.42
41 GUILFORD	16	5.03	36	3.78	3.80

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
HYPERTENSION WITH OR WITHOUT RENAL DISEASE CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	5	5.41	6	3.60	3.03
43 HARNETT	5	8.28	7	3.90	4.25
44 HAYWOOD	1	2.13	4	2.86	1.62
45 HENDERSON	6	9.90	14	7.92	15.17
46 HERTFORD	0	0.00	2	2.84	0.91
47 HOKE	2	9.43	3	4.89	2.85
48 HYDE	0	0.00	1	5.59	2.42
49 IREDELL	3	3.56	10	4.02	4.79
50 JACKSON	0	0.00	5	6.45	8.53
51 JOHNSTON	0	0.00	8	3.75	3.97
52 JONES	0	0.00	1	3.44	1.65
53 LEE	3	8.08	11	10.01	10.54
54 LENOIR	3	4.99	12	6.69	5.44
55 LINCOLN	1	2.33	3	2.36	2.28
56 MCDOWELL	1	2.78	2	1.89	1.66
57 MACON	2	9.43	5	8.10	3.48
58 MADISON	0	0.00	0	0.00	0.00
59 MARTIN	1	3.79	6	7.66	4.58
60 MECKLENBURG	19	4.61	57	4.69	5.24
61 MITCHELL	0	0.00	1	2.30	1.29
62 MONTGOMERY	0	0.00	5	7.46	6.28
63 MOORE	3	5.84	8	5.28	4.17
64 NASH	4	5.84	8	3.94	3.48
65 NEW HANOVER	4	3.78	15	4.81	4.84
66 NORTHAMPTON	1	4.44	3	4.42	1.64
67 ONSLOW	1	0.88	3	0.88	2.21
68 ORANGE	5	6.45	12	5.19	6.61
69 PAMLICO	0	0.00	0	0.00	0.00
70 PASQUOTANK	2	7.03	3	3.52	2.70
71 PENDER	0	0.00	0	0.00	0.00
72 PERQUIMANS	0	0.00	2	6.98	3.66
73 PERSON	1	3.39	2	2.28	2.03
74 PITT	7	7.59	14	5.15	4.59
75 POLK	1	7.45	2	5.11	8.89
76 RANDOLPH	1	1.07	4	1.45	1.42
77 RICHMOND	2	4.36	6	4.40	3.90
78 ROBESON	8	7.77	19	6.22	5.08
79 ROCKINGHAM	5	5.90	12	4.78	4.65
80 ROWAN	5	4.98	13	4.36	4.04
81 RUTHERFORD	1	1.83	2	1.23	1.69
82 SAMPSON	0	0.00	1	0.67	0.63
83 SCOTLAND	1	3.07	7	7.21	4.27
84 STANLY	0	0.00	4	2.76	2.06
85 STOKES	2	5.87	3	3.01	4.87
86 SURRY	4	6.67	8	4.49	4.55
87 SWAIN	0	0.00	0	0.00	0.00
88 TRANSYLVANIA	0	0.00	0	0.00	0.00
89 TYRRELL	0	0.00	0	0.00	0.00
90 UNION	3	4.16	7	3.31	4.40
91 VANCE	5	13.58	13	11.81	7.83
92 WAKE	4	1.29	17	1.87	2.26
93 WARREN	1	6.15	4	8.17	2.16
94 WASHINGTON	4	27.22	6	13.50	9.89
95 WATAUGA	1	3.06	2	2.09	1.47
96 WAYNE	1	1.02	21	7.19	6.66
97 WILKES	0	0.00	2	1.13	1.56
98 WILSON	1	1.58	8	4.23	3.64
99 YADKIN	1	3.44	2	2.33	4.27
100 YANCEY	0	0.00	1	2.22	1.19

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

CEREBROVASCULAR DISEASE

Cerebrovascular disease, or stroke, claimed the lives of 4,717 North Carolinians during 1981. It ranked as the third leading cause of death in North Carolina with an overall rate of 79.1 per 100,000 population. The North Carolina unadjusted rate was 10 percent higher than the U.S. rate, but its age-adjusted rate was 27 percent higher which indicates that North Carolina would have a considerably higher stroke death rate if its age structure were like that of the U.S.

The state's 1981 cerebrovascular mortality rate was the lowest since 1949. Reductions in the rates have occurred for all four race-sex groups. Nonwhite males and females, who had the highest rates during the 1979-81 period, experienced the smallest percent reductions in rates from the 1974-78 period. The 1979-81 adjusted rates for the race-sex groups were 50.1 for white males, 39.6 for white females, 98.2 for nonwhite males, and 66.3 for nonwhite females. In this period, nonwhite males had the highest risk of mortality from stokes for all ages under 85. For the 85-and-over age group, white females and white males had the highest rates.

Risk Factors

The risk factors associated with cerebrovascular disease are essentially the same as those for heart disease: high cholesterol, high blood pressure, atherosclerosis, heavy smoking, diabetes, lack of exercise, stress, and age (1,3,4,6). Consistent with higher rates of hypertension and atherosclerosis mortality for nonwhites, nonwhites suffer a higher incidence of stroke mortality and at a much earlier age (10).

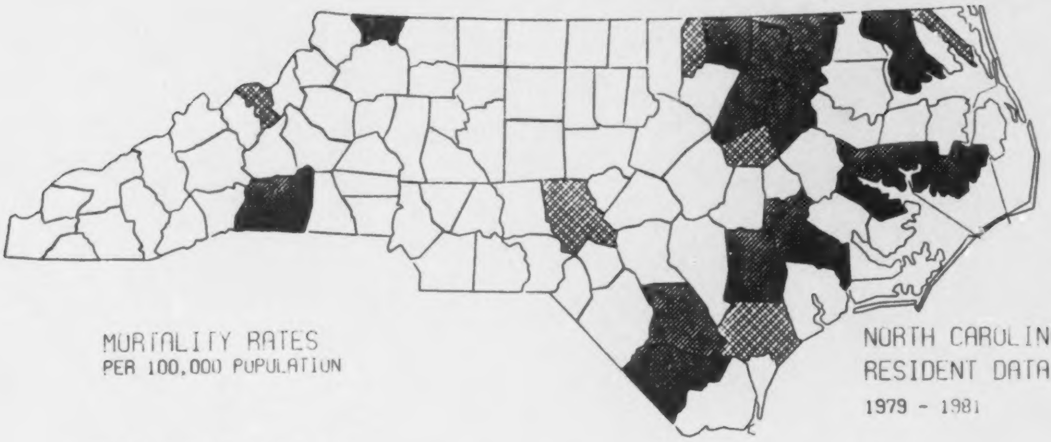
Factors possibly associated with reduced cerebrovascular and other cardiovascular mortality are improved patient and physician education and increased availability of medical services including rescue squads, coronary care units, and physician supply (4).

Geographic Patterns

Figure 7.A shows a scattering of counties with relatively high unadjusted rates (Levels 4-6) and several pockets of high-rate counties, primarily in the east. After adjusting for age, race, and sex (Figure 7.B), even more counties appear in the high-rate group. Further, these high-rate counties are concentrated in both the central and eastern portions of the state, although there is an apparent band of inordinately high rates (Levels 5-6) extending from Halifax down to New Hanover County and across to Richmond.

Based on procedures described in Section II, the eastern pockets of high unadjusted county rates were found to cluster geographically (see unadjusted map on next page). Spatial clustering continues to prevail in the east after adjusting for age, race, and sex (see adjusted map on next page). Thus, it is clear that some eastern North Carolina counties are experiencing inordinately high cerebrovascular mortality that cannot be explained by age, race, and sex factors.

CEREBROVASCULAR DISEASE

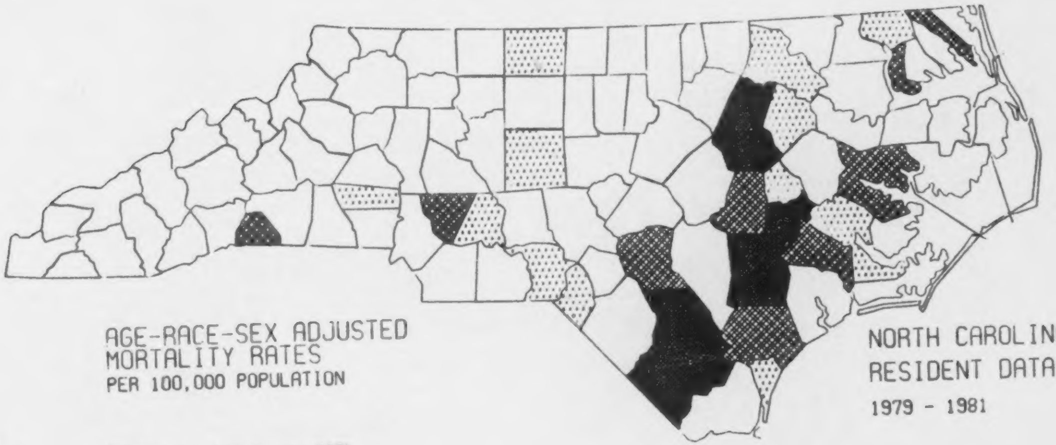


MORTALITY RATES
PER 100,000 POPULATION

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

■ 116.2 - 176.4 (p=.003)
▨ 107.2 - 115.3 (p=.007)
☐ 0.0 - 107.1

CEREBROVASCULAR DISEASE



AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

■ 110.2 - 132.9 (p=.033)
▨ 100.5 - 106.5 (p=.0025)
░ 91.5 - 100.0 (p=.001)
☐ 0.0 - 91.4

TABLE 7

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CEREBROVASCULAR DISEASE

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	4717	79.13	14165	80.15	80.15
REGIONS					
DHR I WESTERN	1572	76.93	4725	78.19	74.84
DHR II N. CENTRAL	1044	81.94	3186	84.14	80.38
DHR III S. CENTRAL	997	72.39	2860	70.14	80.26
DHR IV EASTERN	1104	87.18	3394	50.15	89.89
HSA I WESTERN	803	77.81	2437	79.73	68.03
HSA II PIEDMONT	900	79.90	2739	81.82	79.94
HSA III S. PIEDMONT	769	76.03	2288	76.61	80.65
HSA IV CAPITAL	567	68.27	1753	71.31	74.90
HSA V CARDINAL	770	84.47	2155	79.84	88.58
HSA VI EASTERN	908	86.56	2793	89.39	89.45
COUNTIES					
1 ALAMANCE	80	80.26	245	82.16	75.03
2 ALEXANDER	18	70.46	52	68.96	76.35
3 ALLEGHANY	14	143.97	37	127.80	75.83
4 ANSON	22	85.93	65	84.84	62.31
5 ASHE	21	92.38	52	77.69	43.41
6 AVERY	9	60.86	23	52.83	42.45
7 BEAUFORT	50	120.81	149	121.96	102.44
8 BERTIE	14	65.97	58	91.67	65.31
9 BLADEN	51	165.85	128	139.96	132.81
10 BRUNSWICK	22	59.10	66	60.77	61.61
11 BUNCOMBE	148	91.49	452	93.58	70.47
12 BURKE	39	53.22	131	60.26	67.26
13 CABARRUS	97	110.41	271	104.94	101.67
14 CALDWELL	33	48.41	106	52.32	57.78
15 CAMDEN	7	123.26	19	109.69	106.47
16 CARTERET	22	51.28	53	42.30	44.45
17 CASWELL	21	99.95	64	102.97	88.02
18 CATAWBA	77	72.13	257	81.43	91.44
19 CHATHAM	38	111.75	94	93.14	80.25
20 CHEROKEE	10	52.03	28	49.28	26.11
21 CHOWAN	20	158.25	56	147.94	105.96
22 CLAY	5	71.87	10	49.70	27.45
23 CLEVELAND	53	63.21	167	66.84	63.63
24 COLUMBUS	59	113.56	179	116.24	110.23
25 CRAVEN	46	64.03	149	69.62	92.58
26 CUMBERLAND	129	51.36	373	50.14	106.36
27 CURRITUCK	5	44.20	16	47.21	43.80
28 DARE	10	69.15	29	71.06	63.29
29 DAVIDSON	79	69.50	228	67.36	75.67
30 DAVIE	14	52.76	49	64.81	69.15
31 DUPLIN	46	112.59	152	124.11	114.62
32 DURHAM	105	67.83	356	77.50	74.63
33 EDGECOMBE	55	97.99	196	116.37	97.6[illegible]
34 FORSYTH	191	77.37	560	76.38	72.81
35 FRANKLIN	23	75.31	93	102.90	80.75
36 GASTON	100	60.89	322	66.12	74.98
37 GATES	12	133.77	32	120.95	91.69
38 GRAHAM	6	85.08	1[illegible]	70.13	68.95
39 GRANVILLE	38	109.97	85	82.99	70.76
40 GREENE	12	74.63	39	81.54	91.50
41 GUILFORD	266	83.67	800	84.15	82.23

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CEREBROVASCULAR DISEASE CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	64	115.45	199	119.70	95.50
43 HARNETT	45	74.55	128	71.31	76.40
44 HAYWOOD	52	110.83	143	102.35	78.26
45 HENDERSON	60	99.00	182	103.01	75.68
46 HERTFORD	16	68.04	45	64.04	49.40
47 HOKE	13	61.31	37	60.35	68.03
48 HYDE	8	133.33	22	123.00	82.60
49 IREDELL	63	74.86	212	85.23	80.16
50 JACKSON	16	60.46	46	59.35	51.89
51 JOHNSTON	51	70.99	153	71.87	72.47
52 JONES	15	154.52	35	120.63	102.34
53 LEE	31	83.58	95	86.53	88.51
54 LENOIR	78	129.99	240	133.90	125.81
55 LINCOLN	29	67.58	106	83.68	97.58
56 MCDOWELL	25	69.70	74	70.27	57.68
57 MACON	19	89.60	55	89.13	67.39
58 MADISON	18	102.72	52	102.22	90.78*
59 MARTIN	19	72.08	52	66.46	49.98
60 MECKLENBURG	269	65.34	771	63.56	72.84
61 MITCHELL	22	151.56	50	115.29	63.82
62 MONTGOMERY	19	83.68	65	97.07	80.39
63 MOORE	75	146.23	171	112.91	84.78
64 NASH	70	102.36	249	122.81	119.18
65 NEW HANOVER	93	88.07	282	90.61	92.75
66 NORTHAMPTON	28	124.47	82	120.81	81.70
67 ONSLOW	26	22.91	69	20.30	52.63
68 ORANGE	29	37.44	95	41.14	53.37
69 PAMLICO	10	95.84	25	80.75	64.42
70 PASQUOTANK	29	102.01	78	91.63	75.70
71 PENDER	22	97.72	74	111.19	100.53
72 PERQUIMANS	9	93.57	37	129.17	79.03
73 PERSON	27	91.57	85	97.11	88.18
74 PITT	67	72.72	194	71.47	82.51
75 POLK	21	156.52	69	176.33	104.00
76 RANDOLPH	81	87.03	248	90.21	98.46
77 RICHMOND	56	122.12	138	101.26	91.85
78 ROBESON	94	91.36	259	84.79	89.92
79 ROCKINGHAM	84	99.24	263	104.85	99.99
80 ROWAN	110	109.74	299	100.49	81.35
81 RUTHERFORD	66	121.00	188	116.27	88.06
82 SAMPSON	39	78.21	110	73.98	63.30
83 SCOTLAND	31	95.21	80	82.40	93.94
84 STANLY	43	89.14	153	105.89	98.65
85 STOKES	18	52.85	76	76.27	67.06
86 SURRY	48	80.15	130	73.02	56.29
87 SWAIN	6	57.91	27	87.14	62.26
88 TRANSYLVANIA	14	58.65	46	65.17	59.11
89 TYRRELL	0	0.00	11	90.78	76.41
90 UNION	58	80.47	154	72.98	83.33
91 VANCE	36	97.81	118	107.22	77.65
92 WAKE	169	54.92	513	56.69	75.30
93 WARREN	20	123.03	66	134.90	72.74
94 WASHINGTON	10	68.06	34	76.55	76.07
95 WATAUGA	12	36.73	46	48.07	39.30
96 WAYNE	91	93.38	260	89.07	101.96
97 WILKES	20	33.78	88	49.75	49.87
98 WILSON	69	109.03	213	112.78	110.22
99 YADKIN	18	62.02	76	88.63	67.25
100 YANCEY	19	126.58	41	91.30	49.02

* SEE SECTION II

CEREBROVASCULAR DISEASE

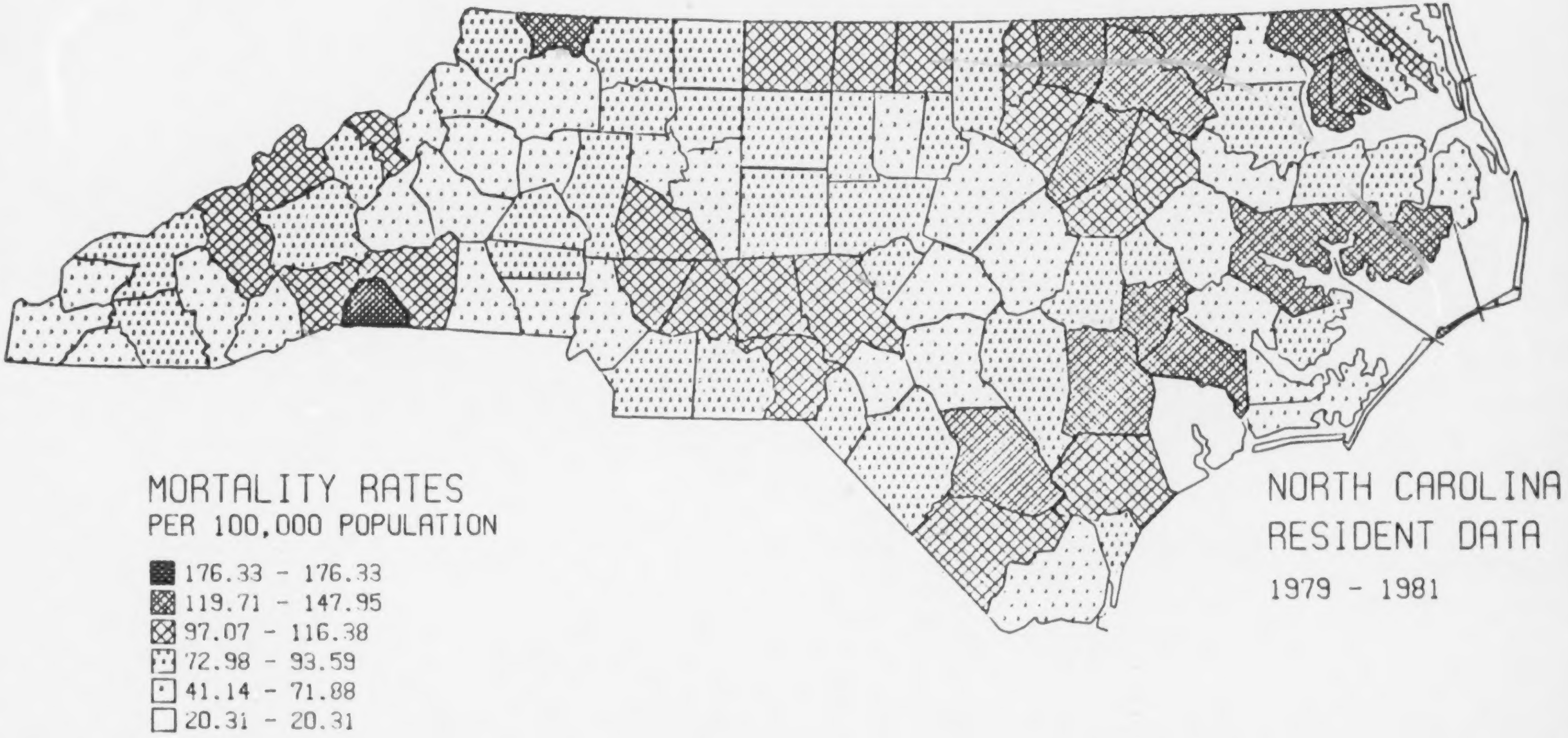

MORTALITY RATES
PER 100,000 POPULATION
▩ 176.33 - 176.33
▩ 119.71 - 147.95
▩ 97.07 - 116.38
▩ 72.98 - 93.59
▩ 41.14 - 71.88
☐ 20.31 - 20.31
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 7.A

CEREBROVASCULAR DISEASE

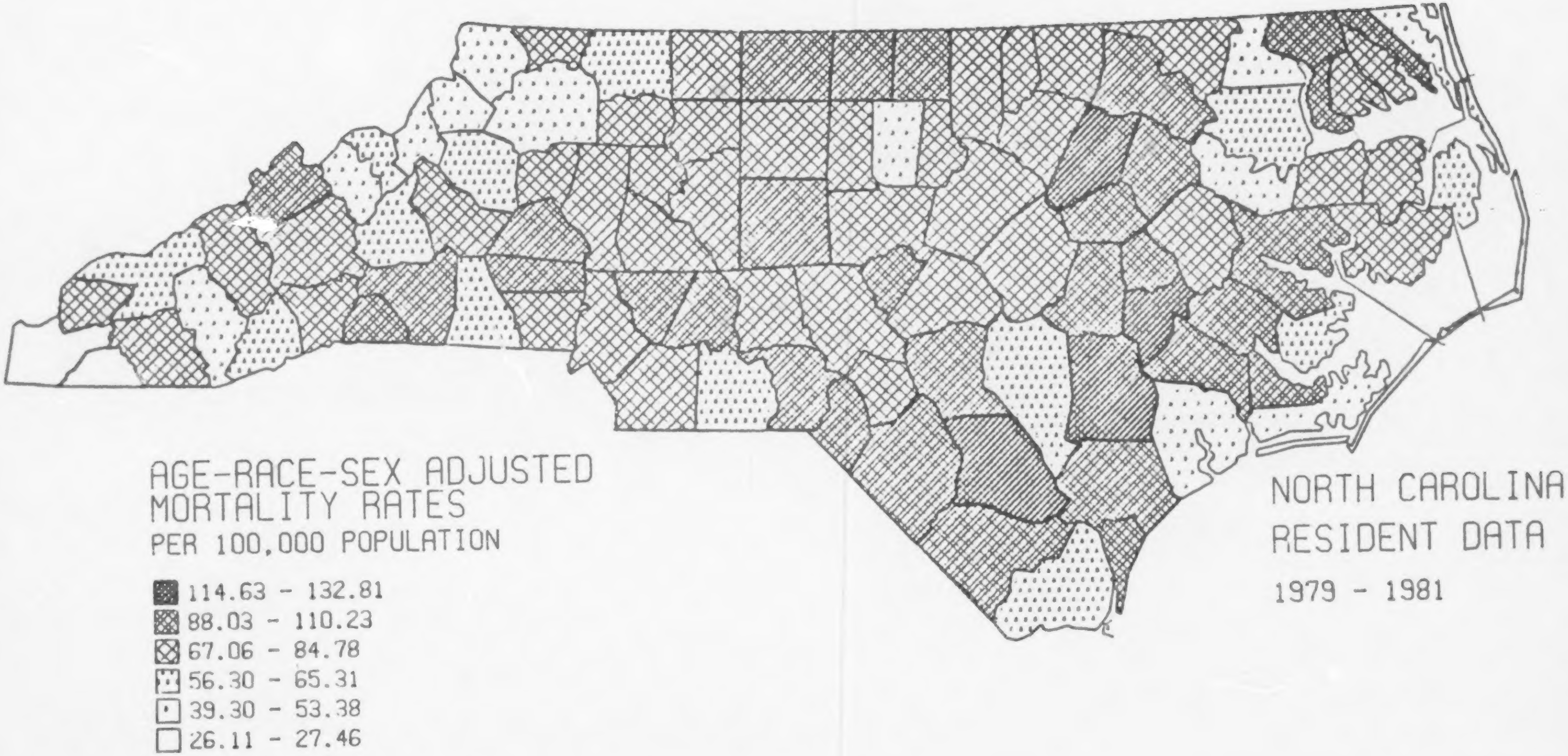

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 114.63 - 132.81
▩ 88.03 - 110.23
▨ 67.06 - 84.78
▦ 56.30 - 65.31
⊡ 39.30 - 53.38
☐ 26.11 - 27.46
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 7.B

ATHEROSCLEROSIS

Atherosclerosis (called arteriosclerosis in this publication before 1979) is a general term covering a number of diseases of the blood vessels and is often called "hardening of the arteries." Like hypertension, atherosclerosis is listed as a contributing cause on the death certificate far more often than it is assigned as the underlying cause of death. In particular, atherosclerosis contributes to deaths from heart disease, stroke, and diabetes. It was estimated that in 1970, 87 percent of the more than 1 million deaths in the United States due to heart and blood vessel diseases were attributable to atherosclerosis and its sequelae (1).

In 1970 the North Carolina death rate for atherosclerosis as the underlying cause was 12.7 per 100,000 population, while in 1981 this rate was 9.7, indicating a 24 percent decline over the decade. Part of this change, however, could be due to changes in death certificate coding practices. Also, the implementation of a computerized system for assigning underlying cause in 1975 resulted in some deaths being assigned to ischemic heart disease that would have formerly been assigned to atherosclerosis (11).

Comparisons of the age-adjusted atherosclerosis death rates for the four race-sex groups between the periods 1974-78 and 1979-81 (the 1974-78 rates were corrected for changes in the ICD and in population bases) shows a decline over time for each group. White males had the largest percent decline (30.4%), followed by white females (22.7%), nonwhite females (16.4%), and nonwhite males (9.4%). Noteworthy are the sex and race differentials. The white male rate (5.5) was 25 percent higher than the white female rate (4.4) in 1979-81 and the nonwhite male rate (8.4) was 38 percent higher than the nonwhite female rate (6.1). Nonwhites had higher atherosclerosis (underlying cause) death rates than whites, 53 percent higher for males and 39 percent higher for females.

The (underlying cause) death rate for atherosclerosis in the 1979-81 period showed a sharp increase with age for all four race-sex groups to a high in the 85-and-over age group of 555 for white males, 547 for white females, 341 for nonwhite males, and 362 for nonwhite females. The higher overall rate for males is due particularly to higher rates in the 35-74 age groups. The higher overall rate for nonwhites is due to higher rates in the under-85 age groups.

In 1981 there were 580 deaths with atherosclerosis as the underlying cause, but over 14,700 death certificates had a mention of atherosclerosis. This suggests that 30 percent of all North Carolina deaths in 1981 involved atherosclerosis, though it is not known just how completely this condition is recorded on the death certificate. Of these 14,723 deaths with mention of atherosclerosis, 65 percent had heart disease as the underlying cause of death and 14 percent had cerebrovascular disease listed as the underlying cause. Around 50 percent of the deaths with heart disease or cerebrovascular disease as the underlying cause had a mention of atherosclerosis. In 1978, white males had the highest rate of mentions of atherosclerosis per 100,000 population (366), with white females and nonwhite males close together at a lower level (about 300), and nonwhite females much lower still (257). The reasons for the difference between this race-sex pattern and that based on underlying cause are not clear, though the rates for mentions of atherosclerosis are based on about 25 times as many deaths as the rates using underlying cause.

Risk Factors

Three major risk-treatable factors contributing to atherosclerosis have been identified: elevated blood cholesterol levels, high blood pressure, and cigarette smoking. A number of additional factors are also recognized, such as diabetes, physical inactivity, obesity, age, male sex, and certain personality types, that is, "type A" or coronary-prone behavior (1). While older males generally have the highest atherosclerosis death rates, women and young people are also at risk of this disease. The theory that atherosclerosis begins during childhood and continues to develop through adulthood has begun to receive considerable attention (2).

Increasing epidemiological evidence supports the hypothesis that higher concentrations of high-density lipoproteins (HDL's) may be a protective factor in the development of atherosclerosis. "Levels of HDL have been correlated positively with exercise and moderate ingestion of alcohol and inversely related to obesity, smoking, poor control of diabetes, and the use of progestin-containing contraceptives" (1). The cause and effect of the inverse relationship between HDL and atherosclerosis, however, remain unclear.

Geographic Patterns

Upon examining geographic variation in the atherosclerosis (underlying cause) death rate using the clustering technique described in Section II, a significant cluster of counties with high adjusted rates in southcentral North Carolina was revealed. Richmond, Moore, Scotland, Hoke, Robeson, and Cumberland counties, all contiguous, had some of the highest 1979-81 age-race-sex-adjusted rates in the state. Nearby counties that also had high adjusted rates are Rowan, Union, and Brunswick. This apparent pattern should be considered very cautiously since the numerators of some of these rates are very small. Consequently, it was decided to show the two major maps on atherosclerosis using mentioned conditions rather than underlying cause data. These maps, along with an associated analysis, are presented in the Multiple Conditions Section (Section X) and show 1979-81 atherosclerosis mentions per 100,000 population.

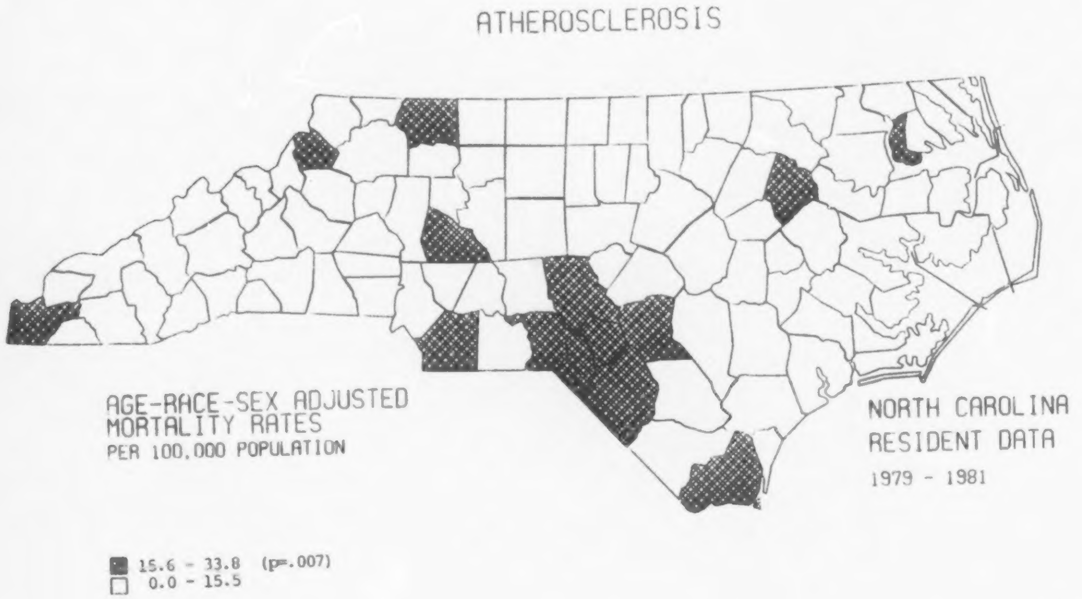

ATHEROSCLEROSIS
AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
■ 15.6 - 33.8 (p=.007)
☐ 0.0 - 15.5

TABLE 8

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

ATHEROSCLEROSIS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	580	9,73	1725	9,76	9,76
REGIONS					
DHR I WESTERN	194	9.49	577	9.54	8.81
DHR II N. CENTRAL	118	9.26	336	8.87	8.42
DHR III S. CENTRAL	136	9.87	419	10,27	12.13
DHR IV EASTERN	132	10,42	393	10,43	10.86
HSA I WESTERN	94	9.10	299	9.78	8.24
HSA II PIEDMONT	112	9.94	313	9.35	9.19
HSA III S. PIEDMONT	100	9.88	278	9.30	9.65
HSA IV CAPITAL	59	7.10	178	7.24	7.95
HSA V CARDINAL	118	12.94	360	13,33	15.42
HSA VI EASTERN	97	9.24	297	9.50	10.04
COUNTIES					
1 ALAMANCE	14	14.04	43	14,42	12.89
2 ALEXANDER	1	3.91	7	9,28	15.24*
3 ALLEGHANY	0	0.00	0	0.00	0.00
4 ANSON	4	15.62	9	11,74	7.14
5 ASHE	1	4.39	3	4.48	2.30
6 AVERY	1	6.76	1	2,29	2.31
7 BEAUFORT	5	12.08	15	12,27	11.01
8 BERTIE	0	0.00	3	4.74	4.52
9 BLADEN	2	6.50	4	4.37	3,22
10 BRUNSWICK	11	29.55	25	23.02	24,16
11 BUNCOMBE	18	11.12	63	13,04	8.77
12 BURKE	4	5,45	16	7.36	8.08
13 CABARRUS	4	4.55	13	5.03	4.55
14 CALDWELL	4	5.86	16	7.89	8.88
15 CAMDEN	0	0.00	3	17,32	12,89
16 CARTERET	2	4.66	8	6.38	4.85
17 CASWELL	4	19.03	9	14,48	11.23
18 CATAWBA	8	7.49	29	9.18	9.99
19 CHATHAM	1	2.94	5	4.95	3.78
20 CHEROKEE	1	5.20	9	15,84	17.70
21 CHOWAN	3	23.73	10	26,41	22.02
22 CLAY	2	28.74	2	9.94	5.38
23 CLEVELAND	17	20.27	35	14,01	12.76
24 COLUMBUS	4	7.69	23	14.93	13.62
25 CRAVEN	10	13.92	22	10,28	13.62
26 CUMBERLAND	21	8.36	52	6,99	17.68
27 CURRITUCK	0	0.00	2	5.90	4.98
28 DARE	1	6.91	1	2,45	2.16
29 DAVIDSON	7	6.15	20	5.90	6.16
30 DAVIE	2	7.53	8	10,58	12.68
31 DUPLIN	6	14.68	12	9.79	10.13
32 DURHAM	13	8.39	42	9.14	9.19
33 EDGECOMBE	10	17.81	29	17.21	19.22
34 FORSYTH	15	6.07	48	6.54	6.22
35 FRANKLIN	1	3,27	6	6.63	5.19
36 GASTON	12	7.30	30	6.16	7.00
37 GATES	0	0.00	0	0.00	0.00
38 GRAHAM	0	0.00	0	0.00	0.00
39 GRANVILLE	2	5.78	4	3.90	4.86
40 GREENE	3	18.65	5	10,45	13.62
41 GUILFORD	36	11,32	94	9.88	9.72

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
ATHEROSCLEROSIS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	9	16,23	32	19,24	14.38
43 HARNETT	2	3,31	8	4.45	4.50
44 HAYWOOD	0	0.00	9	6.44	3.56
45 HENDERSON	13	21.45	30	16.98	13.93
46 HERTFORD	4	17.01	6	8.53	7.43
47 HOKE	1	4,71	6	9.78	15.65
48 HYDE	0	0.00	2	11.18	6.16
49 IREDELL	11	13.07	33	13.26	12.09
50 JACKSON	2	7.55	11	14,19	10.29
51 JOHNSTON	5	6.95	16	7.51	7.61
52 JONES	0	0.00	1	3.44	4.39
53 LEE	6	16.17	17	15.48	15.32
54 LENOIR	4	6.66	11	6.13	6.82
55 LINCOLN	6	13,98	14	11,05	13.18
56 MCDOWELL	2	5.57	10	9.49	8.99
57 MACON	1	4.71	4	6.48	3.05
58 MADISON	1	5.70	3	5.89	13.85*
59 MARTIN	0	0.00	5	6.39	8.47
60 MECKLENBURG	25	6.07	73	6.01	7.08
61 MITCHELL	2	13,77	2	4.61	2.35
62 MONTGOMERY	2	8.80	5	7.46	6.03
63 MOORE	14	27,29	46	30,37	22.39
64 NASH	5	7.31	14	6.90	7.14
65 NEW HANOVER	17	16.09	40	12,85	13.41
66 NORTHAMPTON	0	0.00	11	16.20	12.07
67 ONSLOW	2	1.76	14	4.12	11.76
68 ORANGE	4	5.16	16	6.92	8.95
69 PAMLICO	1	9.58	3	9.69	7.30
70 PASQUOTANK	3	10.55	5	5.87	3.83
71 PENDER	3	13.32	8	12,02	11.38
72 PERQUIMANS	1	10.39	7	24,43	15.57
73 PERSON	2	6.78	8	9.13	8.75
74 PITT	12	13,02	29	10,68	11.16
75 POLK	1	7.45	7	17,88	10.65
76 RANDOLPH	4	4.29	11	4.00	6.51
77 RICHMOND	9	19,62	28	20.54	20.22
78 ROBESON	20	19.43	75	24.55	25.37
79 ROCKINGHAM	10	11,81	31	12,35	11.80
80 ROWAN	25	24.94	65	21,84	16.09
81 RUTHERFORD	8	14.66	16	9.89	7.59
82 SAMPSON	0	0.00	6	4,03	4.37
83 SCOTLAND	8	24.57	25	25,75	33.80
84 STANLY	9	18.65	16	11,07	11.15
85 STOKES	3	8.80	9	9,03	7.87
86 SURRY	15	25.04	31	17,41	16.84
87 SWAIN	2	19,30	2	6.45	4.43
88 TRANSYLVANIA	1	4.18	7	9,91	6.66
89 TYRRELL	0	0.00	2	16.50	8.53
90 UNION	8	11.10	34	16,11	19.66
91 VANCE	1	2,71	5	4.54	4.15
92 WAKE	24	7.79	59	6.52	8.91
93 WARREN	0	0.00	0	0.00	0.00
94 WASHINGTON	1	6.80	3	6.75	7.94
95 WATAUGA	0	0.00	6	6.27	30.24*
96 WAYNE	7	7.18	25	8.56	9.21
97 WILKES	4	6.75	7	3,95	4.80
98 WILSON	8	12.64	17	9.00	9.61
99 YADKIN	2	6.89	9	10.49	7.72
100 YANCEY	0	0.00	4	8.90	4.74

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

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VI. Cancer Mortality

CANCER

Cancer is the second most frequent cause of death in the United States, and unlike mortality from other major diseases, cancer mortality continues to increase. As a result, beginning in 1977, North Carolina's cancer death toll has exceeded the toll from heart attack and in 1981 was 24 percent higher.

But despite appearances to the contrary, cancer is not entirely a product of modern times. It has been reported that, even by the 7th century, the origin of its name--"cancer," the crab--had already been lost in antiquity. In fact, based on findings of large tumorous masses extruding from the petrified bones of unearthed dinosaur remains, cancer seems to have predated man himself.(1)

Still, there continues to accumulate an overwhelming body of statistical evidence that modern-day lifestyles and technologies are exacerbating the cancer problem. While the exact patho-physiological mechanisms of the disease remain largely unknown, a number of external chemical and physical agents known as carcinogens have been implicated.

In the meantime, North Carolina's health community is treating cancer as a major public health issue as evidenced by not only advanced research and treatment in our medical institutions but also the Division of Health Services' involvement in a variety of prevention, diagnosis/treatment, and epidemiologic research efforts:

- Available in most local health departments and in 25 comprehensive screening centers across the state, cancer screening services consist of Pap smears, blood tests, urinalysis, X-ray, and patient histories. Educational information, e.g., how to conduct breast self-examination, is also provided.

- The Adult Health Section administers a financial aid program for cancer diagnosis and treatment of lower-income patients not receiving financial aid from any other source.
- To aid in evaluating treatment practices, the Adult Health Section maintains the North Carolina Cancer Registry which collects diagnosis, treatment, and follow-up information on cancer patients treated in participating hospitals. Unfortunately, hospital participation is on a voluntary basis.
- The Epidemiology Section is developing an environmental epidemiology program that conducts investigations of possible carcinogens in high-risk areas of the state.
- The State Center for Health Statistics reports county, regional, state, and nationwide statistical information gleaned from death certificates, hospital discharge records, household surveys, and epidemiologic investigations.

Clinical and Epidemiologic Research

Recent discoveries have spurred hope that cancer researchers may soon find ways to prevent or effectively treat the dread disease. One discovery is that normal human cells contain genes that have potential oncogenic activity. The hope is that, by learning what makes such genes trigger cancer, researchers can find ways to prevent it or at least to identify and stop the process once it's begun. Cooper (2) suggests, however, that, ". . . it is likely that activation of these genes is only one of several events involved in carcinogenesis." Further, Rubin (3) warns that explanations for the origin of cancer have been varied and plentiful in this century and the rush to accept the "oncogene" explanation is "at best premature."

A discovery about 10 years ago also provides impetus for current cancer research--that of natural killer (NK) cells that have the spontaneous ability to destroy tumor cells as well as cells infected with viruses. Since reactivity of those cells can be rapidly augmented by interferon, it is conceivable that through immunoprevention or immunotherapy, NK cells might eventually be harnessed as a viable cancer fighter. Herberman notes, however, that there remain several practical problems in conducting experiments to substantiate a major role for NK cells in resistance against tumor growth. (4)

Those problems notwithstanding, several sponsors including the American Cancer Society (ACS) continue to support interferon research in this country. In addition to those particular studies, the ACS funds research in the broad areas of genetic engineering, man-made antibodies, the mechanisms of carcinogensis, and chemoprevention, among others. As a result, $62.7 million or 31 percent of the ACS's 1981/82 budget was expended for research. (5)

Concurrently, it has been estimated that 70-90 percent of human cancers are likely spawned by environmental factors (6), and both human and animal studies continue to contribute evidence involving the following categories of agents (7):

- Consumables: tobacco, alcohol, food including coffee, saccharin, and other nonnutrients, drugs such as antineoplastic agents and the estrogens, and cosmetics including hair dye, alcoholic mouthwash, and talcum powder;
- Contaminants: asbestos, compounds of certain metals, various organic chemicals, various radionuclides, wood dusts, air, water, man-made food additives, biologic agents, and physical agents including ultraviolet and ionizing radiation.

Numerous epidemiologic studies have ascribed carcinogenic qualities to the above agents while producing equivocal results regarding some of those as well as other agents in the environment. In order to come to grips with the resulting confusion and conflicting information, the American Cancer Society is undertaking a six-year comprehensive survey of more than 1 million Americans who will be studied for factors related to personal habits, lifestyle, and environmental conditions. The society will correlate these factors with disease incidence and report findings late in the decade. (8)

In the meantime, the work of epidemiologists has been graphically described by Shodell (1): "Epidemiologists are like bookies of disease, stalking the globe to determine point-spreads on which groups of people are most likely to get which disease." As a result of this work, a world cancer map is emerging. The patterns reveal that all peoples are susceptible to cancer but with widely varying propensities for specific types. In the U.S., for example, cancers are largely those of the lung, breast, and colon, while in Japan, cancer of the stomach is a major type.

But epidemiological studies have also demonstrated that immigrants to a country often contract that country's cancers. Second-generation Japanese in the U.S., for example, appear to be exchanging high stomach cancer rates for the cancer propensities of their new locales. Thus, as Shodell concludes, something that gives rise to cancer must lie buried within a people's social habits, diet, style of life, or technological practices. (1)

One social habit implicated as a major contributor in the rise of cancer is cigarette smoking. The Department of Health and Human Service's 1982 report to Congress on the health consequences of smoking presents a comprehensive evaluation of the relationship between cigarette smoking and cancer. Surgeon General Koop and colleague, Joanne Lucto, summarize conclusions of the report (9):

- Approximately 30 percent of all cancer deaths are attributable to cigarette smoking.
- Smoking is a major cause of lung cancer and of cancers of the larynx, oral cavity, and esophagus.
- It is a contributory factor in the development of cancers of the bladder, pancreas, and kidney.
- To examine "passive" smoking--a nonsmoker's exposure to second-hand tobacco smoke--the authors of the report reviewed three studies that present evidence of an elevated carcinogenic risk among such

nonsmokers. Two of these studies yielded statistically significant associations, and one did not.

In his preface to the full report to Congress (10), Surgeon General Koop concludes: "Cigarette smoking . . . is the chief, single, avoidable cause of death in our society and the most important public health issue of our time."

Concerning carcinogens in the workplace, there are now widely varying estimates of the percent of all cancers attributable to occupational exposures; those estimates range between 1 and 20 percent. Asbestos is estimated to contribute greatly to the occupational cancer burden in the U.S. with an estimated 1.5 to 2.5 million workers exposed. That contaminant is among a growing number of chemical carcinogens to become federally regulated following the Occupational Safety and Health Act of 1970. (6, 11)

In North Carolina, Brinton et al. (12) have found excessive nasal cancer mortality among furniture workers. The SCHS has begun the coding of death certificate entries for "usual" occupation/industry of the decedent in order to undertake similar analyses as soon as ample data accumulate.

Survival Rates

Combined data from 4 cancer registries* have been used to compare the survival experience of patients diagnosed during 1970-73 to the experience of those diagnosed during 1960-63 (13). Specific for race-sex, improvements in the five-year relative survival rates† were statistically significant for the following major sites:

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*California and Connecticut statewide registries and registries of Charity Hospital of New Orleans and the University of Iowa Hospital.

†The relative survival rate is the ratio of the observed survival rate to the expected survival rate for persons of the same age, race and sex in the general population. Race-specific rates have been adjusted by the direct method for differences in age and stage of disease at diagnosis.

White Males: colon, rectum, lung, prostate, acute and chronic lymphocytic leukemia.

White Females: colon, rectum, lung, breast, cervix, ovary, acute and chronic lymphocytic leukemia, and chronic granulocytic leukemia.

Black Males: stomach, prostate.

Black Females: rectum, breast, cervix.

For blacks, data were insufficient to examine changes in leukemia survival.

Data from these same registries for the period 1964-73 also reveal statistically significant differences between the higher survival rates for whites and those for blacks. These differences involve the following sites:

Race differences among males: colon, rectum, larynx, lung/bronchus, prostate, kidney, urinary bladder, Hodgkin's Disease.

Race differences among females: colon, rectum, lung/bronchus, breast, cervix, uterine corpus, Hodgkin's Disease.

For both sexes and for each of 10 major sites, whites were older on the average than were blacks at the time of diagnosis; whites also tended to have a higher percentage of their cancers localized (13). Among the possible explanations are (a) blacks tend to contract the disease earlier, (b) the disease progresses more rapidly in blacks, (c) blacks tend to delay seeking care or receive regular medical care less often than whites, and/or (d) blacks tend to be more exposed to cancer-inducing environments.

Despite a consistent finding of less localized disease among lower socioeconomic groups, results of a study of 46,000 Veterans Administration (VA) male cancer patients suggest that, when treatment is the same, income and race do not generally affect cancer survival rates, although bladder cancer appears to be an important exception. This observation differs from those of other studies because, the authors suggest, all VA patients receive the same treatment whereas most U.S. hospitals treat their patients differentially depending on ability to pay. (14)

Results of the VA study suggest that the biology of most cancer is probably the same for both races. Thus, the white survival advantage due to nonbiologic factors probably accounts for most of the race differential in mortality. For more detail on survival rates, the reader should see the site-specific sections of this report.

Risk Factors

Apparent familial patterns and environmental factors are discussed in subsequent sections of this report. The table below summarizes race-sex-specific risk of death, based on comparisons among North Carolina 1979-81 age-adjusted death rates:

Site of Cancer	N.C. Race-sex Groups Experiencing Excessive Mortality Risk*
Stomach	Males and nonwhites, especially nonwhite males
Pancreas	Males of both races
Trachea/Bronchus/Lung	Males of both races
Cervix Uteri	Nonwhite females
Prostate	Nonwhite males
Leukemia	White males

*The 1979-81 age-adjusted death rate approaches or exceeds twice some other race-sex-specific rate and exceeds the total rate by at least 25 percent.

Among the leading cancer sites, colon/rectum cancer is the one for which race-sex differences in age-adjusted mortality rates are least pronounced. This suggests that common environmental factors may contribute to causation. Similarly, race differences in age-adjusted breast and ovarian cancer rates are relatively small as are race differences in age-adjusted, sex-specific lung cancer rates.

Trends in Mortality

Continuing its upward trend of the past, North Carolina's cancer death rate rose an average 2.6 percent per year between 1970 and 1981 to 166.1 deaths per 100,000 population. The corresponding U.S. increase was about 1.2 percent per year to a provisional rate of 184.3 (15,16).

North Carolina's lower rate and disproportionate increase largely reflect a comparatively young but rapidly aging population. After adjustment for age, the North Carolina rate of 129.6 is only slightly below the nation's 132.0, and--based on 1979 age-adjusted rates--the N.C. advantage largely involves females. For nonwhite males, the N.C. 1979 age-adjusted cancer rate was higher than the nation's at 215.6 vs. 205.0. (16,17)

Due to underestimates of both the state and U.S. populations during the 1970s (particularly among N.C. nonwhites), trend analyses of rates are risky. However, correcting N.C.'s age-adjusted rates for the population underestimates (as also done in the preceding paragraph) reveals a notable decline only in stomach cancer mortality. Moreover, changes in the state's age-adjusted cancer death rates between 1979 and 1981 involved some substantial increases by site. The pancreatic cancer rate increased 24% for white males, 63% for nonwhite males, and 21% for nonwhite females; the lung cancer rate rose 29% for white females and 42% for nonwhite females; and the cervical and ovarian cancer rates of nonwhite females increased 40 and 60 percent respectively.

The next table describes those cancer sites in terms of their reported numbers of deaths over the past ten years. The reader may be assured that the increases observed here generally cannot be explained on the basis of shifts in population size and age alone. Improved diagnostic and certification practices may be contributing factors, however, and the reader should also recognize that temporary aberrations may account for such occurrences as the 60 nonwhite ovarian cancer deaths in 1981.

Nationwide, the recent rapid increase in the lung cancer death rate for women has been associated with increases in cigarette smoking, which peaked during the 1950s (18). Smoking has also been indicted as a contributing factor in cancer of the pancreas as well as the bladder and kidney (10). In total, U.S. cancer mortality has declined for persons under age 50 but has been increasing among persons over 50. However, the most recent data suggest that a turning point may have occurred; cancer death rates for all ages except 65-69 appear to be leveling off. (19)

The above "good news" on the mortality front does not mean at all that the cancer problem is lessening. To the contrary, a reduction in any site-specific death rate is more likely due to factors associated with improved survival than to reduced incidence. Thus, a very significant cancer problem may not be identified through the analysis of mortality rates, and that is why a functional, all-practitioner, all-hospital participatory tumor registry, with sufficient funding to staff and maintain it, is imperative.

Geographic Patterns in Mortality

Among the white population of the coterminous U.S., the northeastern states have had the highest age-adjusted cancer death rates over time. However, the higher rates for some sites are found predominantly in a number of southern states including North Carolina. For white females, those sites

Selected Site-specific Cancer Deaths and Percentage Changes
North Carolina, 1972-1981

Year of Death	Pancreas				Trachea/Bronchus/Lung				Cervix Uteri		Ovary/Uterine Adnexa	
	White Male	White Female	Nonwhite Male	Nonwhite Female	White Male	White Female	Nonwhite Male	Nonwhite Female	White Female	Nonwhite Female	White Female	Nonwhite Female
1981	253	178	85	59	1554	506	411	93	89	71	172	60
1980	209	196	61	66	1464	439	388	83	80	84	199	32
1979	191	165	52	51	1427	369	370	61	77	47	197	35
1978	231	181	50	53	1344	364	359	60	74	75	190	43
1977	184	166	66	52	1284	308	355	59	88	66	191	36
1976	182	138	47	42	1168	302	297	48	87	90	163	37
1975	194	150	61	59	1139	255	282	55	97	82	174	32
1974	191	133	48	26	1062	229	279	49	108	71	167	26
1973	194	139	60	39	1045	205	293	42	93	101	182	39
1972	166	113	48	46	981	189	239	34	111	67	145	35
Percent Change 1972 to 1981	+52.4	+57.5	+77.1	+28.3	+58.4	+167.7	+72.0	+173.5	-19.8	+6.0	+18.6	+71.4

include the lip, tongue and floor of mouth, nose and nasal cavities, and skin. For white males, high southern and N.C. rates include those for cancer of the nasopharynx and the skin. (20)

For the cancer sites examined in this report, North Carolina's age-adjusted white rates generally rank low among the states. However, the N.C. rank appears to be worsening in the case of lung cancer and leukemia (20). For further detail, see the site-specific sections of this report.

Due to small numbers in some states and to dissimilarities in the racial composition of the nonwhite population, state-by-state analyses of the nonwhite rates are not included here but are available (20). Also, for the period 1950-1969, two atlases of cancer mortality depict sex-specific age-adjusted death rates for whites (all U.S. counties are mapped) and nonwhites (state economic areas are mapped). In general, the geographic patterns among nonwhites resemble those among whites, a major exception being absence of a latitudinal gradient for skin cancer which is a rarity among blacks. (21, 22)

In North Carolina, changes in the spatio-temporal relativity of cancer death rates are being observed. These observations result from time-interval correlation analyses in which correlation coefficients (Pearson's r) were obtained for the 100 counties' unadjusted death rates during (i) 1968-70 versus 1973-75 and (ii) 1972-76 versus 1979-81. For total cancer, Pearson's r increased from .74 in (i) to .80 in (ii). This suggests increasing stabilization of the county rates over time such that maps showing 3- or 5-year county rates may be used with increased confidence. A time series in adjusted rates was not available for analysis.

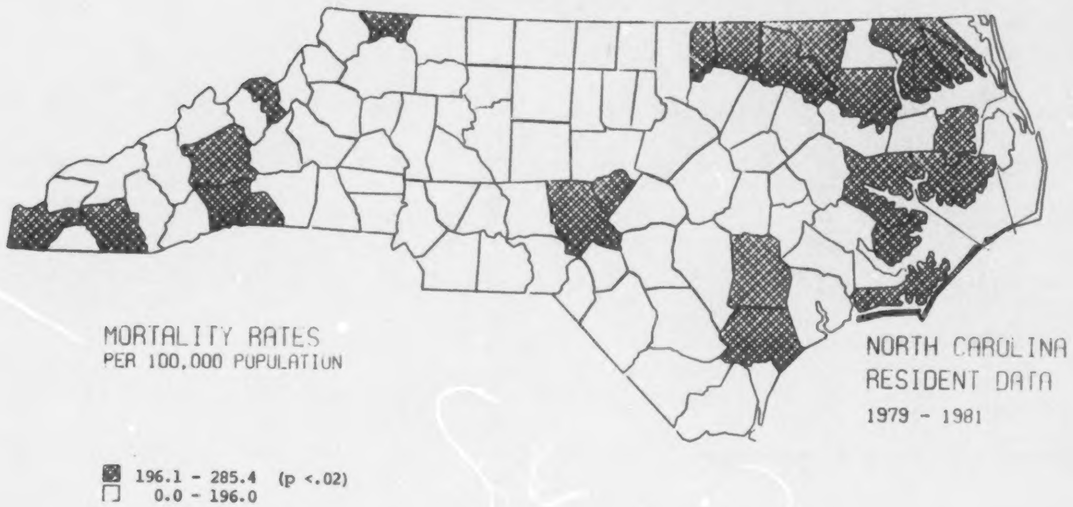
Rates for prostatic cancer represent a significant departure from the general trend described above. Pearson's r for that site dropped substantially, from .57 in (i) to .43 in (ii) and was even lower at .36 during a third and more proximate time interval, 1974-78 versus 1979-81. This suggests that geographical propensities for death from this cause are dissipating over time.

Cancer sites for which Pearson's r was not significant for any time interval studied were pancreas, ovary, and leukemia. Thus, death rates for those sites are associated with substantial random fluctuation when all 100 counties are considered.

In describing total cancer mortality in North Carolina, unadjusted and age-race-sex-adjusted county death rates for 1979-81 are mapped in Figures 9.A and 9.B respectively. For this 3-year period as in the past, high unadjusted rates were more prevalent among western and eastern counties with relatively low rates occurring in the southcentral portion of the state. However, these differences are due largely to age-race-sex differences, and adjustment for these factors changes the mortality picture considerably. Now, as shown in Figure 9.B, high rates have been shifted eastward with relatively low rates occurring in most western counties. In general, southcentral counties are experiencing high levels of risk relative to their unadjusted levels of mortality; for example, the South Central Region's unadjusted rate of 145.2 compares to an adjusted rate of 165.2. Both compare to a state rate of 162.4.

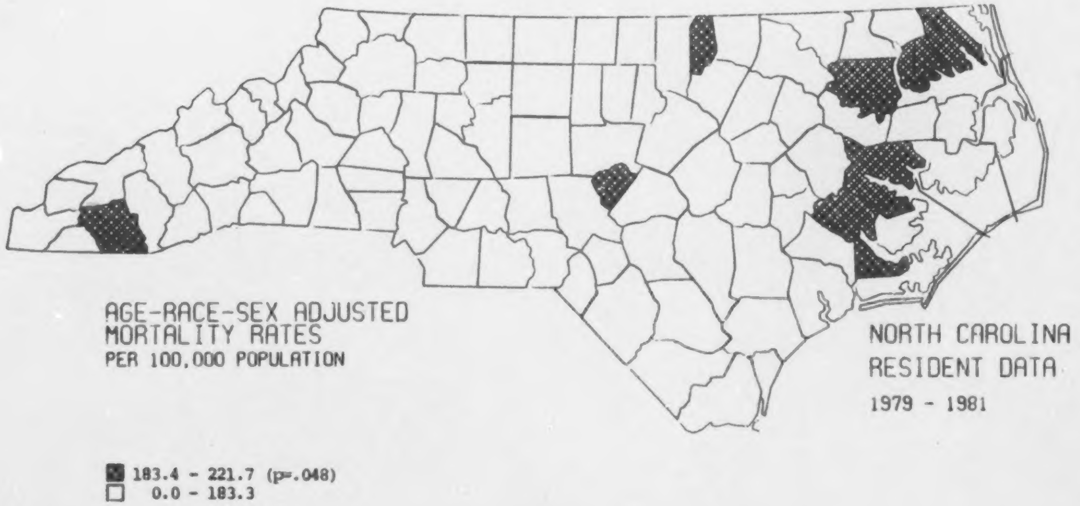
Based on procedures described in Section II of this report, the text map that follows reveals several statistically significant clusters of high unadjusted county rates. One cluster involves ten northeast counties contiguous to Hertford and Currituck whose unadjusted rates were also well above average during 1979-81. Several smaller clusters, including a 4-county coastal area, are also identified.

TOTAL CANCER


MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▨ 196.1 - 285.4 (p <.02)
☐ 0.0 - 196.0

After adjustment for age, race, and sex, the clustering properties of county rates are less strong but two statistically significant clusters remain, both on the coast. The interpretation here is that these areas of contiguous counties are experiencing higher levels of cancer mortality than can be explained on the basis of age, race, and sex distribution alone.

TOTAL CANCER


AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▨ 183.4 - 221.7 (p=.048)
☐ 0.0 - 183.3

It is essential that counties be made aware of their specific types of cancer mortality proneness in order to implement appropriate preventive measures and step up health education aimed at earlier diagnosis. The tables and maps describing counties in terms of mortality rates for each major cancer site (pages 6-23 through 6-103) may aid in this identification process. Counties should note in particular high adjusted death rates and determine if the adjusted rates for those sites have also been above average in the recent past. If so, there may be local conditions that invite intervention.

Health officials also need to be aware of statistically significant clustering of certain high county rates. Particular attention is called to the sections on cancer of the lung, colon/rectum, and female breast as well as leukemia. Researchers may likewise be interested in the lack of colinearity observed among the 100 counties' age-race-sex-adjusted rates for site-specific cancer versus those for other diseases.

TABLE 9

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	9899	166.07	28696	162.38	162.38
REGIONS					
DHR I WESTERN	3476	170.12	9983	165.20	158.13
DHR II N. CENTRAL	2222	174.41	6420	169.54	162.62
DHR III S. CENTRAL	2039	148.06	5928	145.39	165.22
DHR IV EASTERN	2162	170.74	6365	169.07	170.37
HSA I WESTERN	1806	175.01	5234	171.24	153.06
HSA II PIEDMONT	1914	169.93	5590	167.00	162.81
HSA III S. PIEDMONT	1670	165.13	4749	159.01	162.65
HSA IV CAPITAL	1370	164.95	3897	158.54	168.48
HSA V CARDINAL	1347	147.78	4000	148.20	163.00
HSA VI EASTERN	1792	170.83	5226	167.26	170.67
COUNTIES					
1 ALAMANCE	195	195.64	550	184.44	163.83
2 ALEXANDER	38	148.76	114	151.19	150.88
3 ALLEGHANY	21	215.96	65	224.51	154.23
4 ANSON	47	183.58	122	159.24	140.37
5 ASHE	32	140.78	104	155.39	95.96
6 AVERY	22	148.78	53	121.74	147.72*
7 BEAUFORT	76	183.64	252	206.28	183.40
8 BERTIE	57	268.60	142	224.45	194.27
9 BLADEN	52	169.11	143	156.36	145.42
10 BRUNSWICK	55	147.77	195	179.56	167.21
11 BUNCOMBE	352	217.62	997	206.42	169.50
12 BURKE	90	122.81	306	140.77	156.94
13 CABARRUS	164	186.67	471	182.40	168.46
14 CALDWELL	99	145.24	271	133.77	133.44
15 CAMDEN	15	264.13	41	236.70	205.00
16 CARTERET	87	202.79	250	199.57	178.78
17 CASWELL	33	157.07	88	141.58	134.28
18 CATAWBA	164	153.63	456	144.49	155.11
19 CHATHAM	59	173.51	152	150.61	132.87
20 CHEROKEE	36	187.32	127	223.53	149.14
21 CHOWAN	32	253.20	108	285.32	221.65
22 CLAY	17	244.35	35	173.96	103.13
23 CLEVELAND	144	171.76	382	152.91	146.63
24 COLUMBUS	78	150.13	267	173.38	165.99
25 CRAVEN	105	146.17	321	150.00	186.49
26 CUMBERLAND	238	94.76	685	92.08	170.59
27 CURRITUCK	17	150.30	66	194.78	173.96
28 DARE	22	152.13	63	154.38	104.90
29 DAVIDSON	176	154.84	529	156.30	159.67
30 DAVIE	48	180.91	125	165.34	160.39
31 DUPLIN	87	212.95	245	200.04	177.52
32 DURHAM	300	193.81	818	178.08	180.20
33 EDGECOMBE	100	178.17	294	174.56	168.92
34 FORSYTH	412	166.89	1193	162.73	159.74
35 FRANKLIN	59	193.18	159	175.93	153.13
36 GASTON	267	162.58	804	165.11	170.57
37 GATES	13	144.92	52	196.54	161.84
38 GRAHAM	12	170.16	35	163.65	132.37
39 GRANVILLE	78	225.73	174	169.89	146.24
40 GREENE	23	143.05	70	146.36	151.78
41 GUILFORD	605	190.30	1683	177.04	178.04

* SEE SECTION II

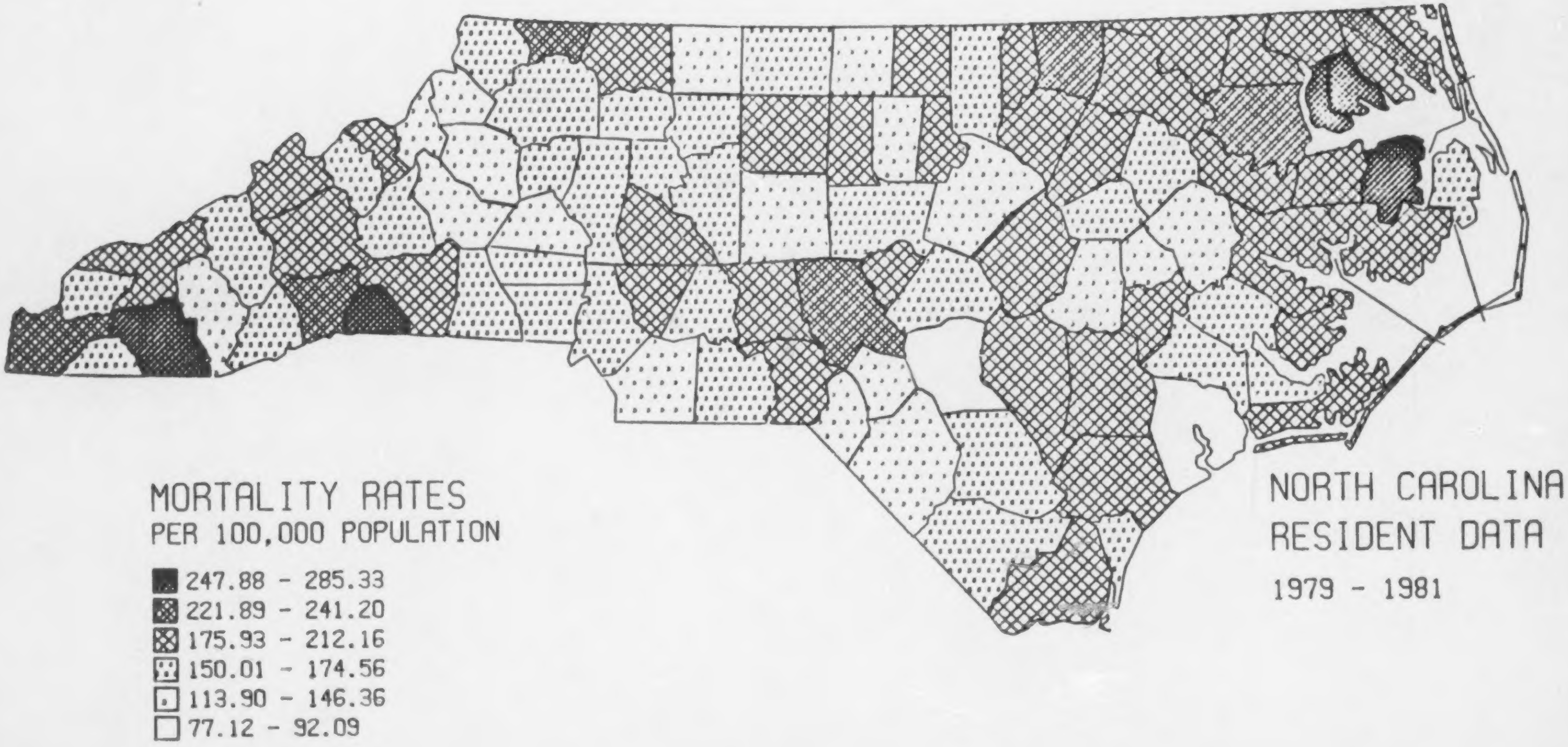
MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	103	185.81	326	196.10	169.66
43 HARNETT	85	140.83	271	150.99	156.55
44 HAYWOOD	72	153.46	242	173.21	135.44
45 HENDERSON	139	229.35	392	221.88	176.59
46 HERTFORD	48	204.14	134	190.70	157.12
47 HOKE	25	117.91	70	114.18	146.39
48 HYDE	14	233.33	36	201.27	151.06
49 IREDELL	136	161.60	386	155.18	143.44
50 JACKSON	35	132.27	107	138.05	144.22
51 JOHNSTON	122	169.81	377	177.11	170.32
52 JONES	8	82.41	46	158.54	139.38
53 LEE	70	188.73	216	196.74	198.75
54 LENOIR	125	208.31	327	182.45	172.29
55 LINCOLN	70	163.13	190	150.01	153.64
56 MCDOWELL	70	195.16	168	159.53	152.32
57 MACON	54	254.66	164	265.78	200.88
58 MADISON	30	171.21	97	190.68	121.75
59 MARTIN	49	185.91	139	177.66	158.93
60 MECKLENBURG	641	155.71	1835	151.29	172.57
61 MITCHELL	31	213.57	88	202.91	122.13
62 MONTGOMERY	38	167.37	122	182.20	159.76
63 MOORE	120	233.97	341	225.17	174.22
64 NASH	122	178.40	360	177.55	171.10
65 NEW HANOVER	182	172.36	541	173.83	174.82
66 NORTHAMPTON	48	213.39	144	212.16	160.67
67 ONSLOW	89	78.45	262	77.11	174.00
68 ORANGE	97	125.24	263	113.90	153.14
69 PAMLICO	25	239.62	64	206.72	164.06
70 PASQUOTANK	57	200.50	175	205.58	186.20
71 PENDER	55	244.32	136	204.35	180.68
72 PERQUIMANS	29	301.51	75	261.84	183.70
73 PERSON	64	217.06	157	179.36	160.43
74 PITT	127	137.85	381	140.37	159.63
75 POLK	31	231.06	97	247.88	174.83
76 RANDOLPH	116	124.63	376	136.78	147.39
77 RICHMOND	87	189.73	247	181.25	163.50
78 ROBESON	143	138.98	440	144.05	163.63
79 ROCKINGHAM	137	161.86	431	171.83	156.38
80 ROWAN	196	195.54	538	180.82	150.40
81 RUTHERFORD	108	198.01	297	183.69	154.98
82 SAMPSON	93	186.50	281	189.00	164.67
83 SCOTLAND	49	150.49	139	143.18	157.52
84 STANLY	87	180.35	244	168.87	156.13
85 STOKES	44	129.20	137	137.50	145.29
86 SURRY	108	180.34	349	196.04	178.64
87 SWAIN	28	270.27	58	187.19	152.20
88 TRANSYLVANIA	43	180.14	115	162.94	121.19
89 TYRRELL	11	266.15	31	255.83	180.49
90 UNION	109	151.24	281	133.17	151.66
91 VANCE	72	195.63	222	201.73	189.98
92 WAKE	414	134.54	1241	137.14	174.36
93 WARREN	35	215.30	118	241.20	158.76
94 WASHINGTON	25	170.16	82	184.62	175.39
95 WATAUGA	40	122.44	121	126.45	110.53
96 WAYNE	164	168.29	412	141.14	157.24
97 WILKES	77	130.08	267	150.95	150.00
98 WILSON	114	180.13	328	173.68	171.32
99 YADKIN	40	137.83	129	150.43	132.08
100 YANCEY	21	139.90	76	169.24	105.96

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

TOTAL CANCER


MORTALITY RATES
PER 100,000 POPULATION
■ 247.88 - 285.33
▩ 221.89 - 241.20
▩ 175.93 - 212.16
▦ 150.01 - 174.56
▣ 113.90 - 146.36
□ 77.12 - 92.09

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 9.A

TOTAL CANCER

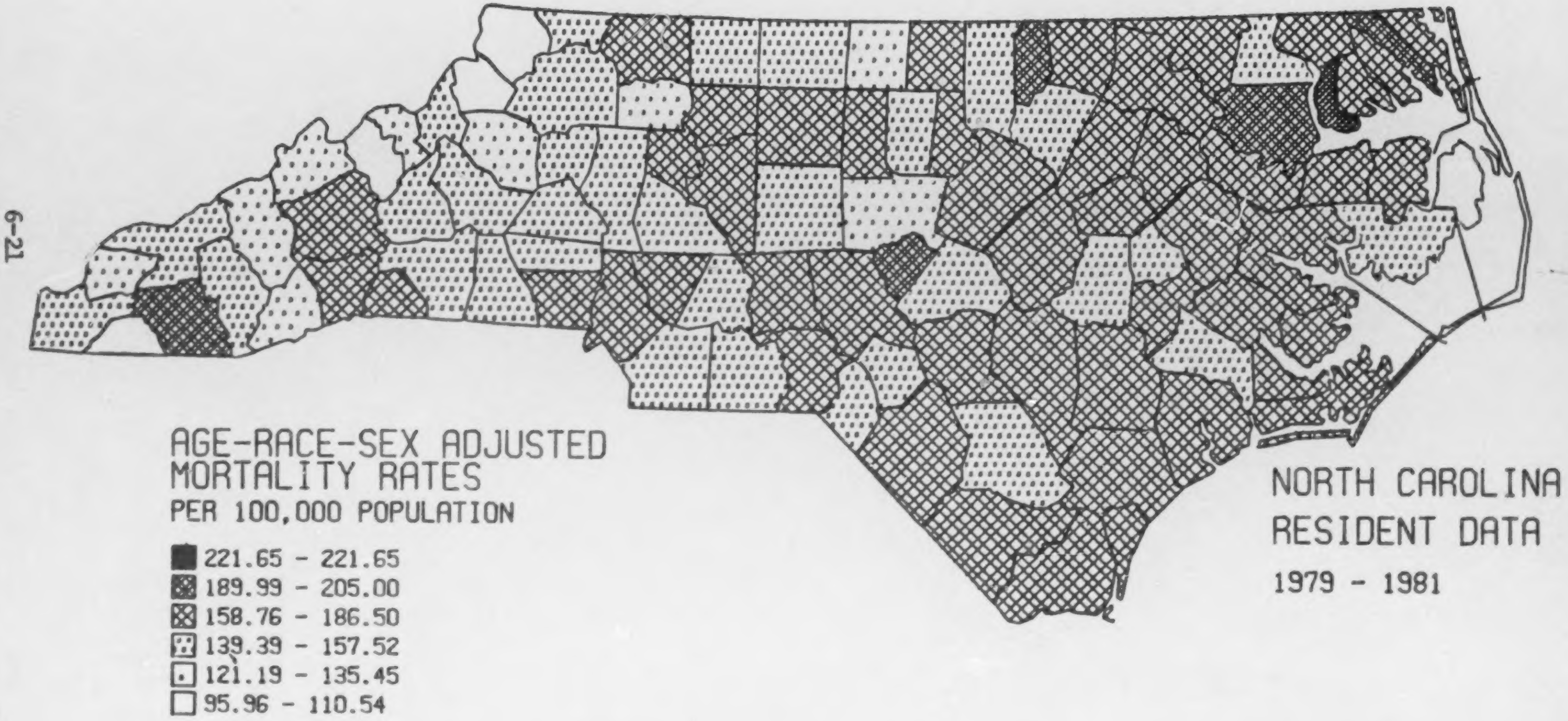

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
■ 221.65 - 221.65
▩ 189.99 - 205.00
▨ 158.76 - 186.50
⁙ 139.39 - 157.52
⊡ 121.19 - 135.45
□ 95.96 - 110.54
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 9.B

CANCER OF THE STOMACH

Formerly the leading form of cancer among Americans, this disease has decreased in both incidence and mortality over the past several decades. In North Carolina, the death rate declined from 7.7 in 1960 to 5.3 in 1970 to 4.7 in 1980 and 1981. The state's age-adjusted rate declined nearly 11 percent during the past two years. According to the American Cancer Society, reasons for the decrease in U.S. stomach cancer rates are unknown (5).

During 1979-81, North Carolina's age-adjusted stomach cancer death rates were: 4.1 for white males, 1.9 for white females, 10.1 for nonwhite males, and 4.3 for nonwhite females. Thus, males and nonwhites, especially nonwhite males, continue to experience excessive mortality from this cause.

The risk of stomach cancer is reportedly about three times higher if close relatives have had it; also, diets that include smoked fish or meats, pickled vegetables, or dried salted fish are suspect. The latter association is based on the fact that Japan has one of the world's highest stomach cancer rates; yet, a high incidence does not persist among the offspring of Japanese who have migrated to Hawaii. Fresh fruits and vegetables have also been found lacking in the diet histories of stomach cancer patients, one hypothesis being that vitamin C protects against nitrosamine formation. (7, 23)

Combined data from four cancer registries (13) reveal markedly improved survival of black males who had stomach cancer diagnosed in the early 70s vs. the early 60s. The 5-year relative survival rate for that group was 15% compared to 12% for white males, 14% for white females, and 10% for nonwhite females. The latter three groups experienced little change in survival trends during the decade of study.

Among the white populations of 48 contiguous states and D.C., N.C.'s ranks in age-adjusted rates for stomach cancer have been consistently low. During 1970-75, N.C. white males ranked fifth lowest and N.C. white females had the lowest rate among the 49 rankings. (20)

During 1979-81, both observed and adjusted stomach cancer mortality rates were slightly higher in the east and west than in central North Carolina. However, high county rates did not cluster significantly in any particular areas of the state. Figures 10.A and 10.B depict the 3-year unadjusted and age-race-sex-adjusted rates for the disease. Based on time-interval correlation analyses, unadjusted county rates for stomach cancer appear to be stabilizing over time though Pearson's r for abutting time periods, 1974-78 versus 1979-81, was still only .35.

Finally, age-race-sex-adjusted county rates for stomach cancer were found to be positively correlated with adjusted rates for chronic obstructive lung disease during both 1974-78 (r=.42) and 1979-81 (r=.21). The greatly reduced Pearson's r for the latter period could reflect the reduced stability of 3-year versus 5-year rates.

TABLE 10

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF STOMACH

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	278	4.66	849	4.80	4.80
REGIONS					
DHR I WESTERN	98	4.79	299	4.94	5.10
DHR II N. CENTRAL	62	4.86	180	4.75	4.62
DHR III S. CENTRAL	65	4.72	173	4.24	4.53
DHR IV EASTERN	53	4.18	197	5.23	4.81
HSA I WESTERN	52	5.03	152	4.97	4.84
HSA II PIEDMONT	51	4.52	149	4.45	4.43
HSA III S. PIEDMONT	46	4.54	147	4.92	5.26
HSA IV CAPITAL	44	5.29	127	5.16	5.01
HSA V CARDINAL	43	4.71	114	4.22	4.43
HSA VI EASTERN	42	4.00	160	5.12	4.68
COUNTIES					
1 ALAMANCE	4	4.01	10	3.35	3.05
2 ALEXANDER	2	7.82	5	6.63	6.20
3 ALLEGHANY	0	0.00	1	3.45	2.03
4 ANSON	4	15.62	4	5.22	4.60
5 ASHE	0	0.00	2	2.98	1.27
6 AVERY	0	0.00	1	2.29	1.53
7 BEAUFORT	3	7.24	6	4.91	4.33
8 BERTIE	5	23.56	8	12.64	8.22
9 BLADEN	4	13.00	7	7.65	7.74
10 BRUNSWICK	1	2.68	4	3.68	3.23
11 BUNCOMBE	9	5.56	24	4.96	4.11
12 BURKE	2	2.72	3	1.38	1.21
13 CABARRUS	4	4.55	16	6.19	7.37
14 CALDWELL	2	2.93	15	7.40	6.69
15 CAMDEN	0	0.00	2	11.54	8.05
16 CARTERET	1	2.33	4	3.19	2.22
17 CASWELL	1	4.75	2	3.21	1.48
18 CATAWBA	8	7.49	14	4.43	6.98
19 CHATHAM	2	5.88	6	5.94	4.74
20 CHEROKEE	0	0.00	2	3.52	1.79
21 CHOWAN	1	7.91	6	15.85	9.58
22 CLAY	1	14.37	1	4.97	4.24
23 CLEVELAND	5	5.96	17	6.80	6.49
24 COLUMBUS	2	3.84	10	6.49	6.14
25 CRAVEN	1	1.39	12	5.60	6.97
26 CUMBERLAND	7	2.78	22	2.95	5.12
27 CURRITUCK	0	0.00	3	8.85	7.62
28 DARE	0	0.00	1	2.45	1.46
29 DAVIDSON	8	7.03	16	4.72	5.48
30 DAVIE	3	11.30	4	5.29	6.51
31 DUPLIN	3	7.34	9	7.34	5.40
32 DURHAM	7	4.52	24	5.22	4.32
33 EDGECOMBE	1	1.78	13	7.71	6.99
34 FORSYTH	13	5.26	37	5.04	4.77
35 FRANKLIN	2	6.54	3	3.31	1.64
36 GASTON	10	6.08	35	7.18	7.57
37 GATES	0	0.00	1	3.77	1.21
38 GRAHAM	0	0.00	0	0.00	0.00
39 GRANVILLE	2	5.78	6	5.85	3.39
40 GREENE	0	0.00	4	8.36	8.99
41 GUILFORD	13	4.08	41	4.31	4.35

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF STOMACH CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	3	5.41	10	6.01	4.39
43 HARNETT	2	3.31	7	3.90	4.14
44 HAYWOOD	3	6.39	6	4.29	2.27
45 HENDERSON	3	4.95	12	6.79	8.39
46 HERTFORD	0	0.00	3	4.26	6.36
47 HOKE	1	4.71	2	3.26	1.67
48 HYDE	0	0.00	0	0.00	0.00
49 IREDELL	6	7.12	13	5.22	4.54
50 JACKSON	2	7.55	4	5.16	4.14
51 JOHNSTON	2	2.78	13	6.10	5.72
52 JONES	0	0.00	1	3.44	5.93
53 LEE	5	13.48	11	10.01	10.57
54 LENOIR	3	4.99	7	3.90	2.85
55 LINCOLN	1	2.33	4	3.15	2.62
56 MCDOWELL	3	8.36	7	6.64	9.52
57 MACON	2	9.43	6	9.72	4.29
58 MADISON	1	5.70	2	3.93	2.29
59 MARTIN	1	3.79	5	6.39	4.01
60 MECKLENBURG	22	5.34	60	4.94	5.54
61 MITCHELL	0	0.00	2	4.61	2.67
62 MONTGOMERY	4	17.61	5	7.46	6.27
63 MOORE	1	1.94	10	6.60	5.58
64 NASH	7	10.23	13	6.41	5.41
65 NEW HANOVER	7	6.62	19	6.10	6.13
66 NORTHAMPTON	1	4.44	2	2.94	0.96
67 ONSLOW	0	0.00	3	0.88	2.29
68 ORANGE	3	3.87	9	3.89	4.87
69 PAMLICO	0	0.00	2	6.46	5.24
70 PASQUOTANK	3	10.55	8	9.39	7.68
71 PENDER	1	4.44	4	6.01	3.87
72 PERQUIMANS	0	0.00	2	6.98	4.25
73 PERSON	3	10.17	7	7.99	6.41
74 PITT	1	1.08	15	5.52	5.14
75 POLK	1	7.45	3	7.66	8.13
76 RANDOLPH	3	3.22	11	4.00	4.24
77 RICHMOND	4	8.72	5	3.66	3.36
78 ROBESON	3	2.91	9	2.94	3.13
79 ROCKINGHAM	4	4.72	15	5.98	5.44
80 ROWAN	1	0.99	10	3.36	2.75
81 RUTHERFORD	4	7.33	7	4.32	4.47
82 SAMPSON	1	2.00	4	2.69	2.37
83 SCOTLAND	1	3.07	2	2.06	2.99
84 STANLY	0	0.00	4	2.76	2.57
85 STOKES	0	0.00	0	0.00	0.00
86 SURRY	2	3.33	9	5.05	3.68
87 SWAIN	0	0.00	1	3.22	3.51
88 TRANSYLVANIA	1	4.18	1	1.41	0.91
89 TYRRELL	0	0.00	1	8.25	7.57
90 UNION	2	2.77	5	2.36	2.65
91 VANCE	4	10.86	11	9.99	6.74
92 WAKE	14	4.54	33	3.64	4.79
93 WARREN	0	0.00	4	8.17	4.30
94 WASHINGTON	0	0.00	2	4.50	4.25
95 WATAUGA	1	3.06	4	4.18	3.44
96 WAYNE	5	5.13	9	3.08	3.28
97 WILKES	1	1.68	7	3.95	3.25
98 WILSON	3	4.74	8	4.23	3.36
99 YADKIN	0	0.00	4	4.66	3.42
100 YANCEY	1	6.66	5	11.13	6.25

* SEE SECTION II

CANCER OF THE STOMACH

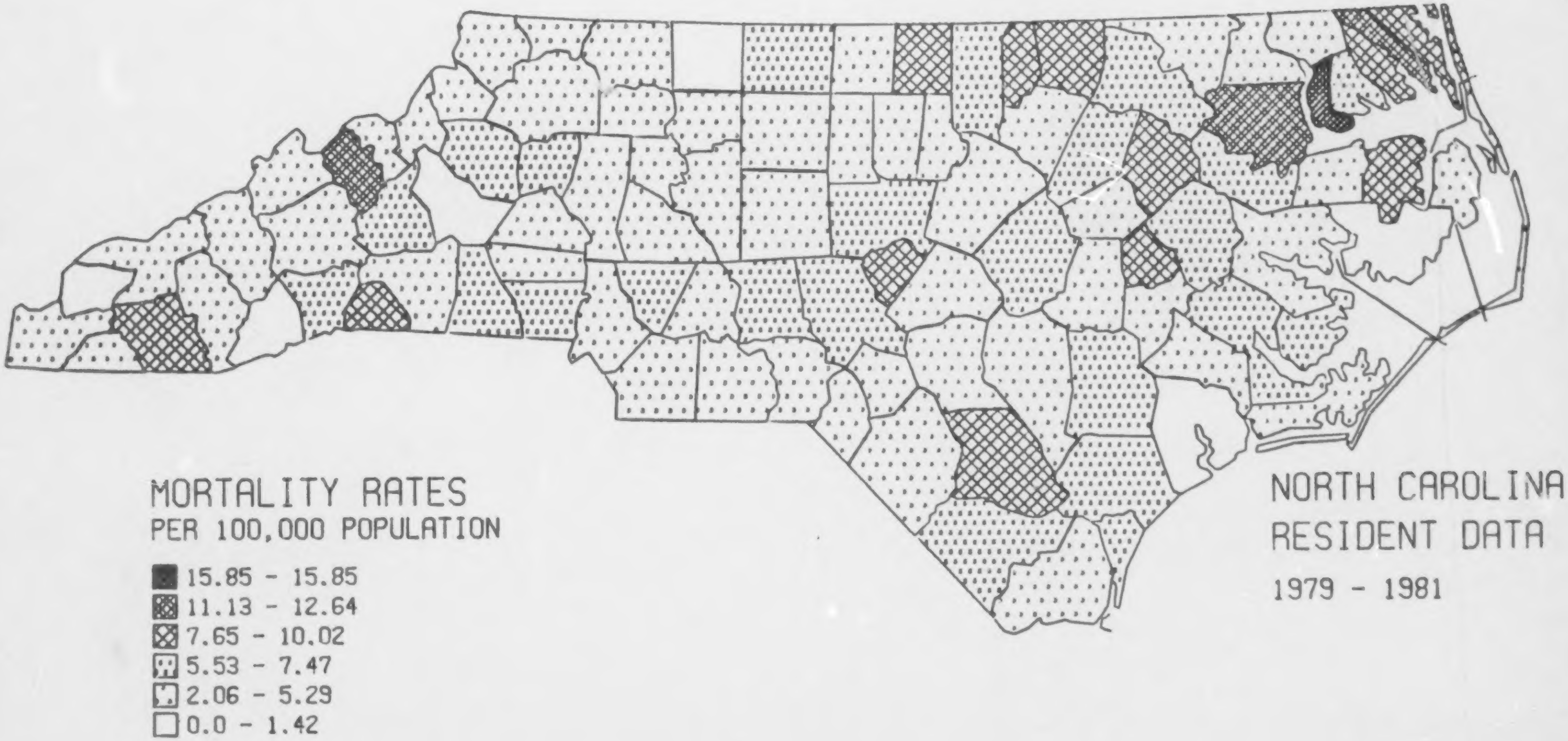

MORTALITY RATES
PER 100,000 POPULATION
15.85 - 15.85
11.13 - 12.64
7.65 - 10.02
5.53 - 7.47
2.06 - 5.29
0.0 - 1.42
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 10.A

CANCER OF THE STOMACH

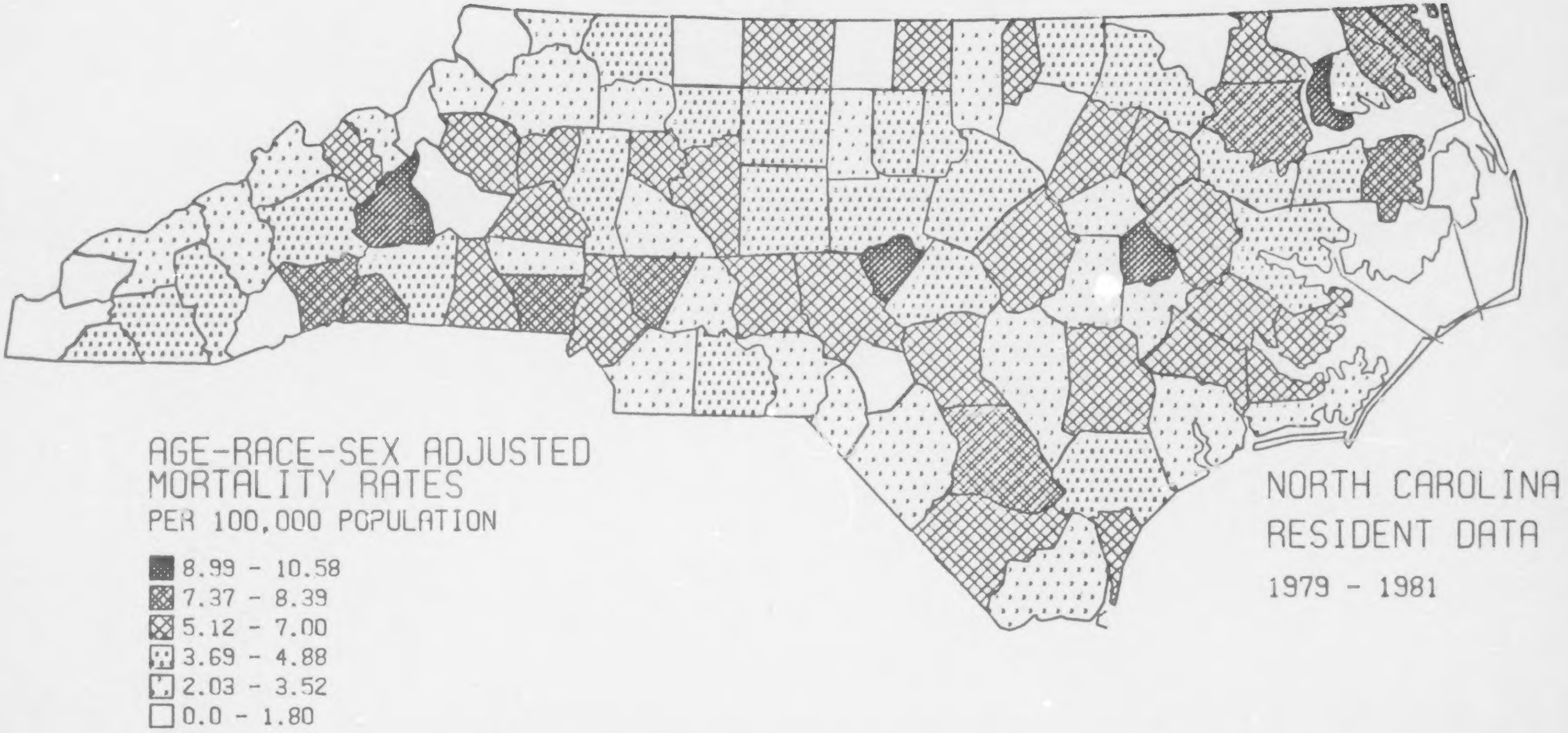

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 8.99 - 10.58
▩ 7.37 - 8.39
▨ 5.12 - 7.00
▦ 3.69 - 4.88
▦ 2.03 - 3.52
☐ 0.0 - 1.80
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 10.B

CANCER OF THE COLON, RECTUM, AND ANUS

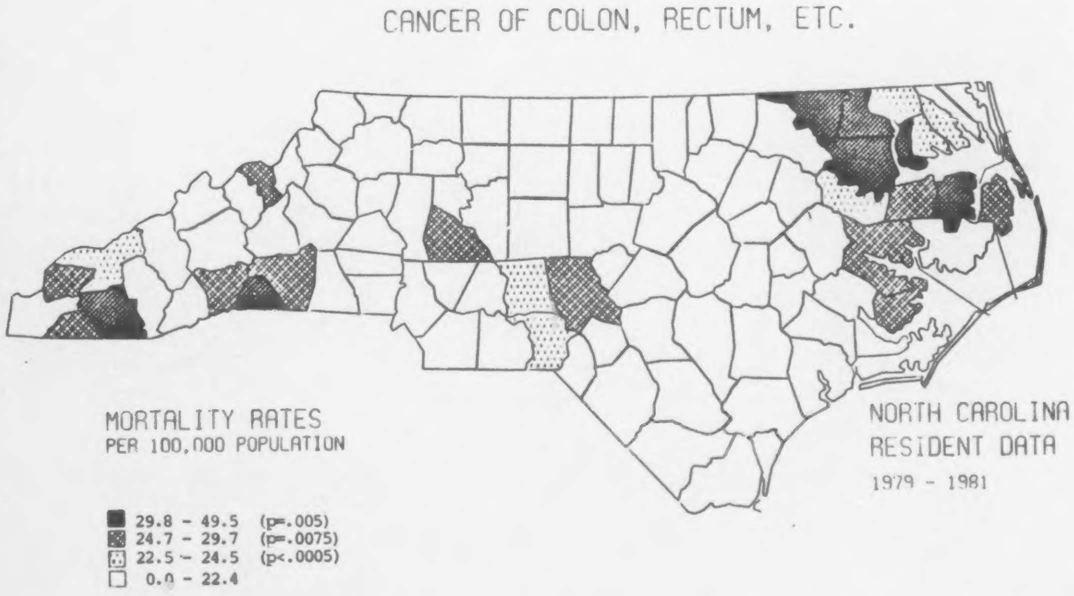
The North Carolina death rate for colon/rectum cancer has changed little since its steady rise through the 60s and early 70s to about 17.2 in 1976. The 1981 rate was 17.6. The state's age-adjusted rate may be declining, having fallen 2.7 percent between 1979 and 1981.

During 1979-81, North Carolina's age-adjusted colon/rectum cancer death rates were: 14.9 for white males, 11.0 for white females, 16.8 for nonwhite males, and 13.2 for nonwhite females. In total, these cancers accounted for more deaths than any other form of cancer except lung cancer.

That "low consumption of fiber sources may be related to both colon cancer and hormone cancer of the ovary and prostate," has been reported (24). Dietary fat and refined sugars as well as beef consumption and cholesterol have also been associated epidemiologically with colon cancer, and there have been reports of reduced risk associated with the consumption of the cruciferous vegetables such as cabbage, brussels sprouts, and broccoli. "Family history of cancer" is among other risk factors for this disease. A finding of particular interest is that the site of most colorectal cancer is shifting higher in the colon. (5,7,25)

For whites of both sexes, statistically significant increases in the 5-year relative survival rates of colon and rectum cancer patients have been reported. The survival rates of whites of both sexes are also shown to be significantly higher than those of blacks. (13)

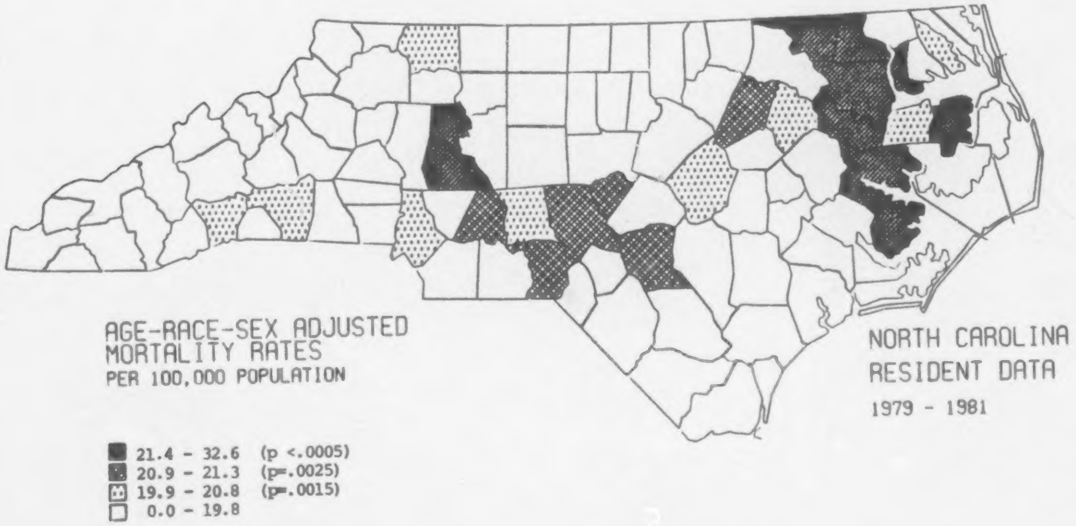
As is true for cancer of the stomach and the digestive organs in general, N.C. ranks among the lowest states in age-adjusted colon/rectum cancer mortality rates among whites (20). However, more than other site-specific cancer death rates examined in this report, the state's higher county-level colon/rectum cancer rates tend to cluster to a statistically significant degree. In the text map that follows (unadjusted rates), a four-county area in the northeast is expanded as secondary and tertiary clusters appear around Polk, Macon, and Moore counties. Altogether, the probability that such clusters of high rates occurred by chance alone is less than 1 in 2,000 (p<.0005). Health officials need to be aware of these areas of high observed mortality from colon/rectum cancer, and counties not identified here should consult Figure 11.A concerning their relative levels of mortality from these diseases. Based on time-interval correlation analyses of unadjusted county rates, geographic patterns in observed colon cancer mortality appear more stable than do patterns for other cancer sites examined except lung cancer.


CANCER OF COLON, RECTUM, ETC.
MORTALITY RATES
PER 100,000 POPULATION
■ 29.8 - 49.5 (p=.005)
▨ 24.7 - 29.7 (p=.0075)
⚃ 22.5 - 24.5 (p<.0005)
☐ 0.0 - 22.4
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

As shown by the next text map, strong clusters of high-rate counties also exist after adjustment for age, race, and sex; in fact, the same 5 northeast counties as before have first-degree adjusted rates. In addition, Gates and Halifax in the northeast as well as Wilson experienced above-average adjusted rates to further strengthen the case for a clustering of risk in the east-northeast portion of the state.

A second pocket of first-degree rates involves Davie and Rowan counties with a contiguous pocket of second-degree rates involving counties around Moore in the southcentral area. In the west, an above-average rate in Polk combines with third-degree rates in Henderson and Rutherford to suggest a tertiary pocket of risk in that area.

CANCER OF COLON, RECTUM, ETC.


AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
■ 21.4 - 32.6 (p <.0005)
▩ 20.9 - 21.3 (p=.0025)
⚃ 19.9 - 20.8 (p=.0015)
☐ 0.0 - 19.8

Altogether, the probability that the clustering pattern mapped above occurred by chance alone is about 1 in 667 (p = .0015). The probability that the clustering of first-degree rates occurred by chance is less than 1 in

2,000 ($p<.0005$). Thus, health officials should be particularly aware of these areas of high colon/rectum cancer mortality over and above that due to age, race, and sex factors. Counties not identified here should see Figure 11.B to ascertain their relative levels of risk for death from this cause. Officials and researchers may also wish to note that adjusted colon cancer rates for counties were positively correlated with corresponding rates for cancer of the lung during both periods 1974-78 ($r=.33$) and 1979-81 ($r=.23$). The reduced Pearson's r for the latter period could reflect the reduced stability of 3-year versus 5-year rates.

Whatever the causes of colon/rectum cancer, the similarities in risk among race-sex groups and the highly significant clustering patterns together suggest that common environmental but nonoccupational factors may contribute to causation. Indeed, in a regression analysis of age-race-sex-adjusted death rates` in 81 N.C. counties, occupational distribution was not explanatory for this cause of death. Among 15 water constituents and 17 other socio-demographic variables examined, only median education and water manganese were statistically significant factors; both were positive correlates. (26)

TABLE 11

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF COLON, RECTUM AND ANUS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	1051	17,63	3119	17,65	17.65
REGIONS					
DHR I WESTERN	398	19.47	1141	18,88	17.69
DHR II N. CENTRAL	231	18.13	676	17,85	17.04
DHR III S. CENTRAL	202	14.66	642	15,74	18.10
DHR IV EASTERN	220	17,37	660	17,53	17.94
HSA I WESTERN	210	20.35	584	19.10	16.07
HSA II PIEDMONT	207	18.37	607	18.13	17.55
HSA III S. PIEDMONT	188	18,58	557	18,65	19.05
HSA IV CAPITAL	125	15.05	394	16,02	17.28
HSA V CARDINAL	133	14.59	417	15.45	17.07
HSA VI EASTERN	188	17,92	560	17,92	18.54
COUNTIES					
1 ALAMANCE	15	15.04	58	19.45	17.13
2 ALEXANDER	3	11.74	7	9,28	8.95
3 ALLEGHANY	1	10.28	6	20,72	11.58
4 ANSON	5	19.53	16	20,88	14.50
5 ASHE	5	21,99	13	19,42	11.16
6 AVERY	1	6.76	1	2,29	1.53
7 BEAUFORT	8	19.33	32	26,19	22.88
8 BERTIE	9	42.41	22	34,77	30.43
9 BLADEN	1	3.25	11	12,02	12.79
10 BRUNSWICK	3	8.06	17	15,65	14.34
11 BUNCOMBE	46	28.43	107	22,15	16.86
12 BURKE	8	10.91	33	15,18	18.34
13 CABARRUS	17	19.35	52	20,13	18.18
14 CALDWELL	13	19.07	36	17,77	15.84
15 CAMDEN	0	0.00	3	17,32	17.84
16 CARTERET	3	6.99	22	17,56	19.09
17 CASWELL	2	9.51	9	14.48	15.17
18 CATAWBA	16	14.98	48	15,20	15.87
19 CHATHAM	4	11.76	19	18,82	17.16
20 CHEROKEE	2	10.40	8	14,08	8.69
21 CHOWAN	6	47.47	14	36,98	26.99
22 CLAY	2	28.74	5	24,85	14.19
23 CLEVELAND	24	28.62	48	19,21	18.09
24 COLUMBUS	5	9.62	19	12,33	12.65
25 CRAVEN	10	13,92	27	12,61	18.73
26 CUMBERLAND	30	11,94	75	10,08	21.20
27 CURRITUCK	2	17.68	6	17,70	17.65
28 DARE	4	27.66	11	26,95	18.02
29 DAVIDSON	21	18.47	62	18,31	17.56
30 DAVIE	6	22.61	16	21,16	21.67
31 DUPLIN	4	9.79	18	14,69	12.42
32 DURHAM	30	19.38	85	18,50	19.34
33 EDGECOMBE	9	16.03	38	22,56	20.68
34 FORSYTH	61	24.71	145	19,77	19.34
35 FRANKLIN	3	9.82	18	19,91	16.69
36 GASTON	33	20.09	88	18,07	18.49
37 GATES	1	11,14	6	22,67	19.15
38 GRAHAM	5	70,90	6	28,05	19.72
39 GRANVILLE	7	20,25	14	13,66	11.25
40 GREENE	1	6.21	3	6,27	9.57
41 GUILFORD	52	16,35	157	16,51	16.50

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF COLON, RECTUM AND ANUS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	11	19.84	34	20.45	18.83
43 HARNETT	10	16.56	26	14.48	15.48
44 HAYWOOD	8	17.05	28	20.04	12.23
45 HENDERSON	23	37.95	48	27.17	20.43
46 HERTFORD	7	29.77	21	29.88	25.38
47 HOKE	0	0.00	9	14.68	16.16
48 HYDE	1	16.66	3	16.77	16.13*
49 IREDELL	19	22.57	46	18.49	16.72
50 JACKSON	2	7.55	5	6.45	9.27
51 JOHNSTON	13	18.09	45	21.14	20.15
52 JONES	2	20.60	4	13.78	12.48
53 LEE	6	16.17	23	20.95	21.38
54 LENOIR	7	11.66	22	12.27	11.36
55 LINCOLN	3	6.99	17	13.42	12.24
56 MCDOWELL	5	13.94	19	18.04	13.72
57 MACON	6	28.29	19	30.79	16.30
58 MADISON	1	5.70	11	21.62	13.29
59 MARTIN	10	37.94	18	23.00	21.39
60 MECKLENBURG	67	16.27	210	17.31	20.26
61 MITCHELL	4	27.55	11	25.36	14.66
62 MONTGOMERY	3	13.21	16	23.89	20.04
63 MOORE	13	25.34	45	29.71	21.31
64 NASH	17	24.85	43	21.20	21.29
65 NEW HANOVER	17	16.09	53	17.03	17.32
66 NORTHAMPTON	7	31.11	21	30.94	26.31
67 ONSLOW	6	5.28	22	6.47	16.31
68 ORANGE	9	11.62	33	14.29	19.08
69 PAMLICO	3	28.75	9	29.07	22.84
70 PASQUOTANK	5	17.58	20	23.49	20.52
71 PENDER	7	31.09	11	16.52	14.07
72 PERQUIMANS	4	41.58	7	24.43	16.87
73 PERSON	3	10.17	7	7.99	7.45
74 PITT	13	14.11	34	12.52	14.03
75 POLK	5	37.26	14	35.77	18.84
76 RANDOLPH	17	18.26	49	17.82	18.97
77 RICHMOND	14	30.53	33	24.21	20.93
78 ROBESON	11	10.69	42	13.75	12.98
79 ROCKINGHAM	14	16.54	45	17.94	16.19
80 ROWAN	28	27.93	81	27.22	22.33
81 RUTHERFORD	13	23.83	41	25.35	19.93
82 SAMPSON	8	16.04	28	18.83	15.25
83 SCOTLAND	6	18.42	16	16.48	17.27
84 STANLY	13	26.94	32	22.14	21.03
85 STOKES	4	11.74	11	11.04	15.37
86 SURRY	11	18.36	40	22.46	20.75
87 SWAIN	2	19.30	7	22.59	13.03
88 TRANSYLVANIA	3	12.56	11	15.58	11.19
89 TYRRELL	1	24.19	6	49.51	32.61
90 UNION	8	11.10	31	14.69	17.72
91 VANCE	7	19.02	20	18.17	15.77
92 WAKE	39	12.67	120	13.26	17.49
93 WARREN	4	24.60	10	20.44	15.63
94 WASHINGTON	5	34.03	11	24.76	20.42
95 WATAUGA	2	6.12	13	13.58	11.27
96 WAYNE	21	21.54	46	15.75	17.90
97 WILKES	7	11.82	29	16.39	17.25
98 WILSON	11	17.38	37	19.59	19.45
99 YADKIN	4	13.78	15	17.49	12.55
100 YANCEY	3	19.98	10	22.26	14.38

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

CANCER OF COLON, RECTUM, ETC.

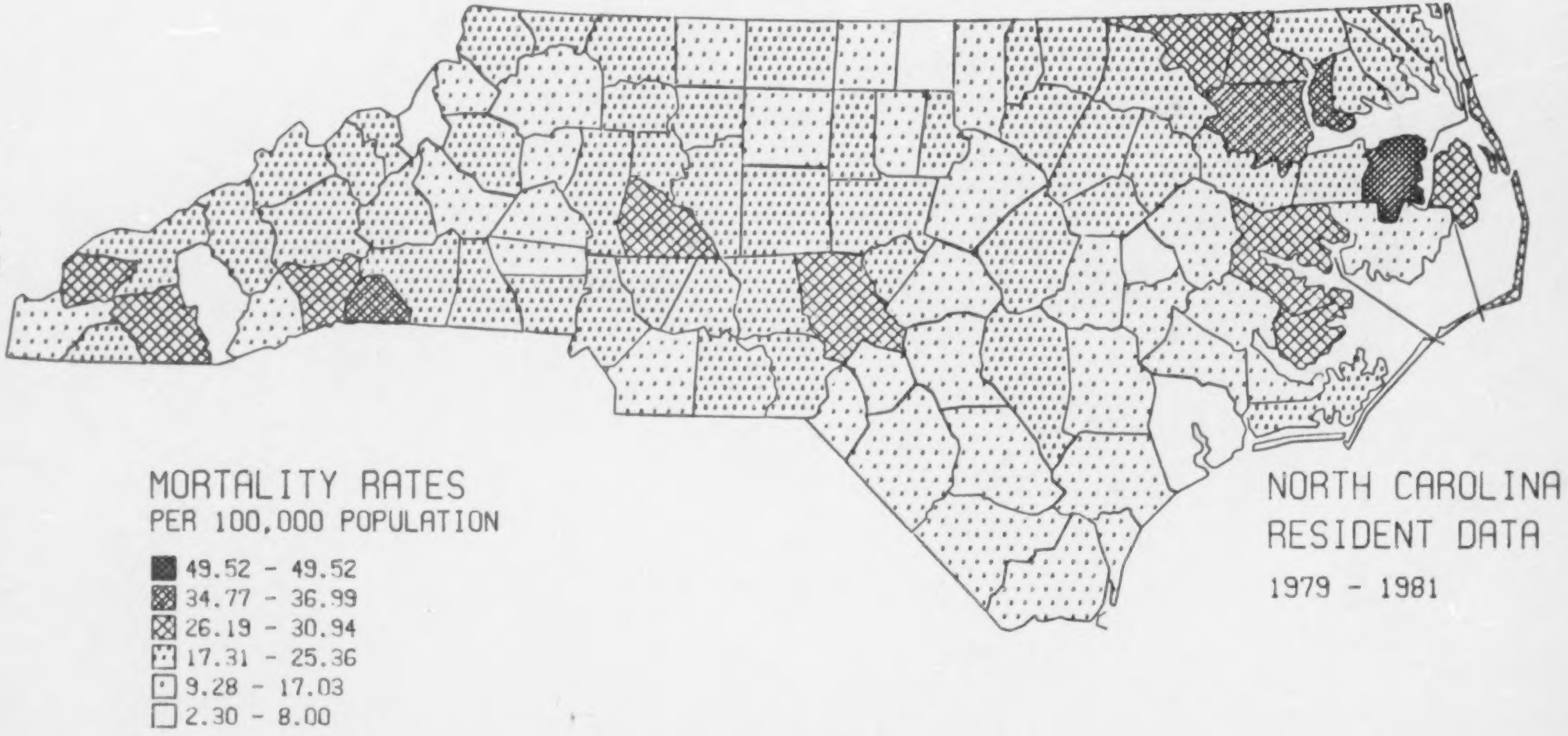

MORTALITY RATES
PER 100,000 POPULATION
■ 49.52 - 49.52
▩ 34.77 - 36.99
▦ 26.19 - 30.94
⁘ 17.31 - 25.36
⊡ 9.28 - 17.03
☐ 2.30 - 8.00
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 11.A

CANCER OF COLON, RECTUM, ETC.

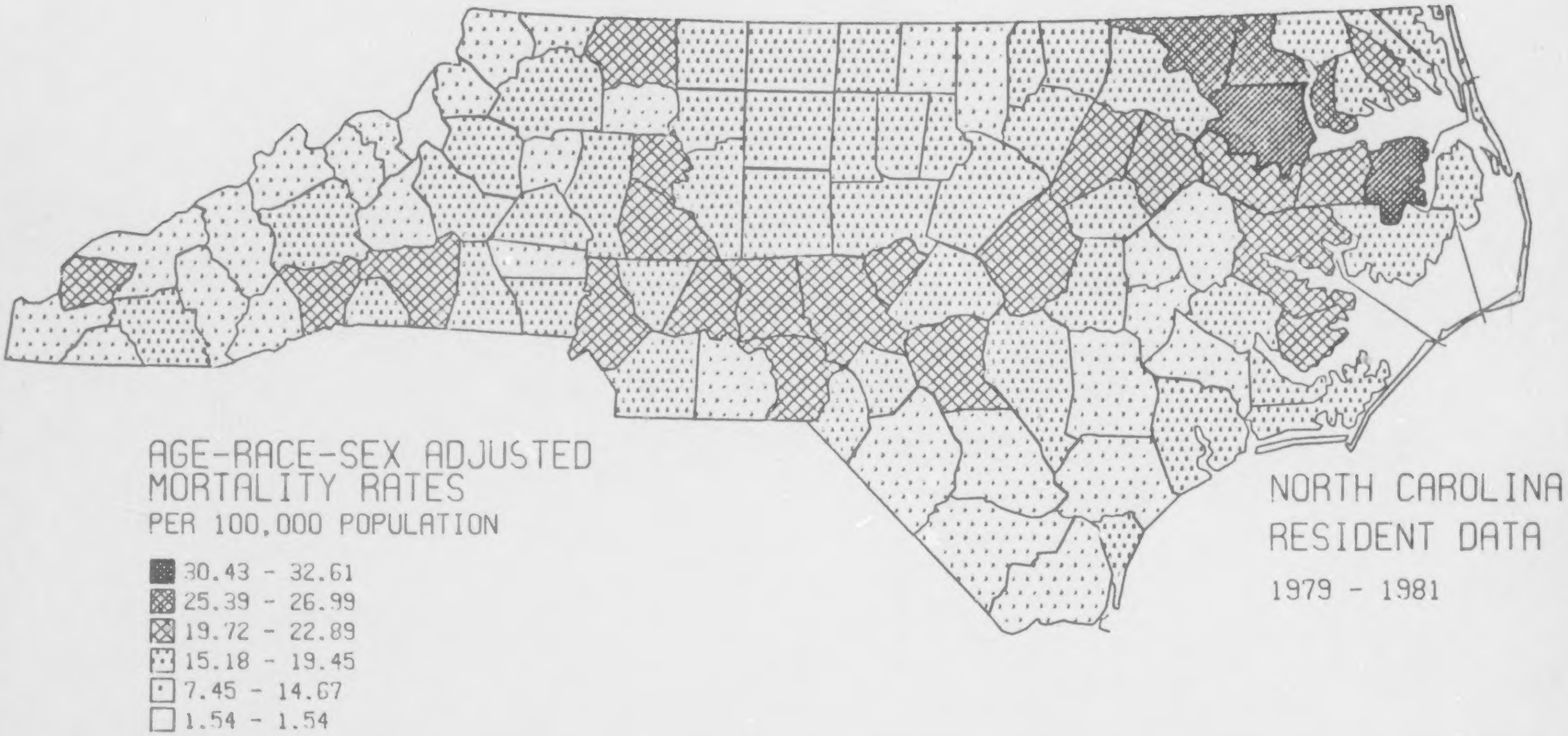

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 30.43 - 32.61
▩ 25.39 - 26.99
▨ 19.72 - 22.89
⁙ 15.18 - 19.45
⊡ 7.45 - 14.67
☐ 1.54 - 1.54
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 11.B

CANCER OF THE PANCREAS

Although accounting for only 575 or 5.8 percent of North Carolina cancer deaths during 1981, cancer of the pancreas is a highly fatal disease and the North Carolina mortality trend has been upward for at least two decades. The 1981 unadjusted rate of 9.6 compares with 7.1 in 1970 and 6.0 in 1960; the 1981 age-adjusted rate of 7.3 compares with 6.1 in 1979 for a 2-year increase of 19 percent (63 percent among nonwhite males).

Numerically, as shown on page 6-12, the numbers of white and nonwhite female pancreatic cancer deaths peaked in 1980 while the numbers of white and nonwhite male deaths from this cause peaked in 1981. Provisional data suggest that the numbers of female deaths may have reached new highs in 1982.

During 1979-81, the state's age-adjusted death rates for pancreatic cancer were: 8.4 for white males, 4.7 for white females, 11.0 for nonwhite males, and 6.8 for nonwhite females. Thus, North Carolina males and nonwhites, especially nonwhite males, are experiencing excessive risk of death from this disease.

While the cause of pancreatic cancer remains unknown, increasing trends in all race-sex groups suggest that exposure to etiologic factors may have increased. In North Carolina, pancreatic cancer mortality has been found to be particularly excessive among divorced and widowed persons (27). Diabetics also may experience excessive mortality from this disease which suggests the possible role of exogenous insulin (28).

Pancreatic cancer may be difficult to diagnose, and data from four cancer registries (13) reveal very low 5-year relative survival rates averaging only about 2 percent for this disease. Each of the race-sex survival rates remained stable over a decade of study.

Nationwide during 1950-69, no clearly discernible geographic patterns were observed for age-adjusted pancreatic cancer mortality among whites (21). Among nonwhites of both sexes, rates were low in the South (22). In North Carolina, data for 1979-81 reveal above-average unadjusted and age-race-sex-adjusted death rates in the northcentral portion of the state with an above-average adjusted rate also occurring in the southcentral area. While high pancreatic cancer death rates do not appear to cluster significantly in any particular areas of the state, high rates do occur in a number of contiguous counties. Counties may examine Figures 12.A and 12.B to ascertain their relative levels of mortality from this cause.

TABLE 12

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF PANCREAS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	575	9.64	1566	8.86	8.86
REGIONS					
DHR I WESTERN	209	10.22	541	8.95	8.49
DHR II N. CENTRAL	133	10.43	370	9.77	9.38
DHR III S. CENTRAL	114	8.27	339	8.31	9.52
DHR IV EASTERN	119	9.39	316	8.39	8.36
HSA I WESTERN	105	10.17	286	9.35	8.15
HSA II PIEDMONT	116	10.29	329	9.82	9.68
HSA III S. PIEDMONT	104	10.28	255	8.53	8.74
HSA IV CAPITAL	68	8.18	200	8.13	8.54
HSA V CARDINAL	90	9.87	238	8.81	9.94
HSA VI EASTERN	92	8.77	258	8.25	8.25
COUNTIES					
1 ALAMANCE	13	13.04	28	9.38	8.44
2 ALEXANDER	1	3.91	7	9.28	12.04
3 ALLEGHANY	2	20.56	2	6.90	4.10
4 ANSON	1	3.90	7	9.13	8.66
5 ASHE	1	4.39	4	5.97	3.50
6 AVERY	0	0.00	4	9.18	7.21
7 BEAUFORT	2	4.83	12	9.82	8.88
8 BERTIE	3	14.13	5	7.90	6.83
9 BLADEN	5	16.26	9	9.84	9.09
10 BRUNSWICK	2	5.37	10	9.20	9.63
11 BUNCOMBE	15	9.27	51	10.55	8.11
12 BURKE	5	6.82	13	5.98	5.97
13 CABARRUS	10	11.38	20	7.74	7.30
14 CALDWELL	9	13.20	20	9.87	10.60
15 CAMDEN	2	35.21	4	23.09	19.74
16 CARTERET	3	6.99	10	7.98	6.03
17 CASWELL	2	9.51	5	8.04	6.80
18 CATAWBA	11	10.30	32	10.13	9.83
19 CHATHAM	1	2.94	8	7.92	7.19
20 CHEROKEE	2	10.40	10	17.60	11.71
21 CHOWAN	0	0.00	3	7.92	7.64
22 CLAY	1	14.37	3	14.91	9.44
23 CLEVELAND	7	8.34	20	8.00	7.87
24 COLUMBUS	8	15.39	13	8.44	8.79
25 CRAVEN	5	6.96	15	7.00	8.86
26 CUMBERLAND	12	4.77	38	5.10	10.46
27 CURRITUCK	1	8.84	2	5.90	4.72
28 DARE	0	0.00	2	4.90	3.49
29 DAVIDSON	13	11.43	33	9.75	10.66
30 DAVIE	2	7.53	5	6.61	7.14
31 DUPLIN	3	7.34	9	7.34	5.99
32 DURHAM	12	7.75	37	8.05	8.47
33 EDGECOMBE	6	10.69	10	5.93	4.87
34 FORSYTH	25	10.12	64	8.72	8.56
35 FRANKLIN	1	3.27	5	5.53	3.92
36 GASTON	17	10.35	38	7.80	8.60
37 GATES	1	11.14	2	7.55	2.54
38 GRAHAM	1	14.18	4	18.70	11.55
39 GRANVILLE	6	17.36	10	9.76	9.52
40 GREENE	1	6.21	3	6.27	4.78
41 GUILFORD	37	11.63	105	11.04	11.12

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF PANCREAS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	3	5.41	17	10,22	6.98
43 HARNETT	4	6.62	19	10.58	10.91
44 HAYWOOD	5	10.65	16	11.45	7.19
45 HENDERSON	4	6.60	18	10.18	8.33
46 HERTFORD	1	4.25	7	9.96	7.47
47 HOKE	3	14.14	4	6.52	7.07
48 HYDE	0	0.00	0	0.00	0.00
49 IREDELL	5	5.94	24	9.64	8.81
50 JACKSON	4	15,11	8	10,32	9.32
51 JOHNSTON	7	9.74	21	9.86	9.50
52 JONES	1	10.30	2	6.89	8.42
53 LEE	2	5.39	8	7,28	7.53
54 LENOIR	10	16.66	22	12,27	11.88
55 LINCOLN	8	18.64	14	11,05	9.98
56 MCDOWELL	6	16,72	12	11,39	8.55
57 MACON	2	9.43	4	6,48	3.19
58 MADISON	3	17.12	6	11,79	6.93
59 MARTIN	3	11.38	8	10,22	8.53
60 MECKLENBURG	42	10.20	101	8,32	9.52
61 MITCHELL	3	20.66	4	9,22	5.61
62 MONTGOMERY	7	30.83	14	20,90	17.43
63 MOORE	11	21.44	21	13,86	10.75
64 NASH	3	4.38	20	9.86	9.84
65 NEW HANOVER	15	14.20	31	9.96	9.83
66 NORTHAMPTON	1	4.44	7	10,31	10.87
67 ONSLOW	4	3.52	5	1,47	3.51
68 ORANGE	6	7.74	16	6.92	9.43
69 PAMLICO	3	28.75	7	22,61	17.95
70 PASQUOTANK	2	7.03	4	4.69	3.95
71 PENDER	2	8.88	4	6.01	5.86
72 PERQUIMANS	1	10.39	2	6.98	3.97
73 PERSON	5	16.95	12	13,70	12.44
74 PITT	9	9.76	22	8.10	10.09
75 POLK	3	22.36	3	7.66	5.89
76 RANDOLPH	6	6.44	23	8.36	9.75
77 RICHMOND	6	13.08	17	12,47	11.03
78 ROBESON	10	9.71	38	12,44	13.83
79 ROCKINGHAM	8	9.45	24	9.56	8.51
80 ROWAN	10	9.97	29	9,74	7.26
81 RUTHERFORD	7	12.83	18	11.13	10.22
82 SAMPSON	2	4.01	8	5.38	4.79
83 SCOTLAND	2	6.14	5	5,15	5.81
84 STANLY	7	14.51	18	12,45	10.05
85 STOKES	1	2.93	7	7,02	6.24
86 SURRY	6	10.01	27	15,16	10.65
87 SWAIN	0	0.00	0	0,00	0.00
88 TRANSYLVANIA	5	20.94	7	9.91	7.44
89 TYRRELL	1	24.19	5	41,26	20.79
90 UNION	5	6.93	11	5,21	6.00
91 VANCE	4	10.86	9	8.17	6.40
92 WAKE	23	7.47	69	7,62	9.50
93 WARREN	1	6.15	5	10,22	2.96
94 WASHINGTON	1	6.80	1	2,25	2.82
95 WATAUGA	3	9.18	7	7,31	6.67
96 WAYNE	18	18.47	31	10,62	11.30
97 WILKES	4	6.75	12	6,78	5.57
98 WILSON	4	6.32	21	11,12	10.28
99 YADKIN	3	10.33	8	9,32	6.60
100 YANCEY	1	6.66	1	2,22	1.19

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

CANCER OF THE PANCREAS

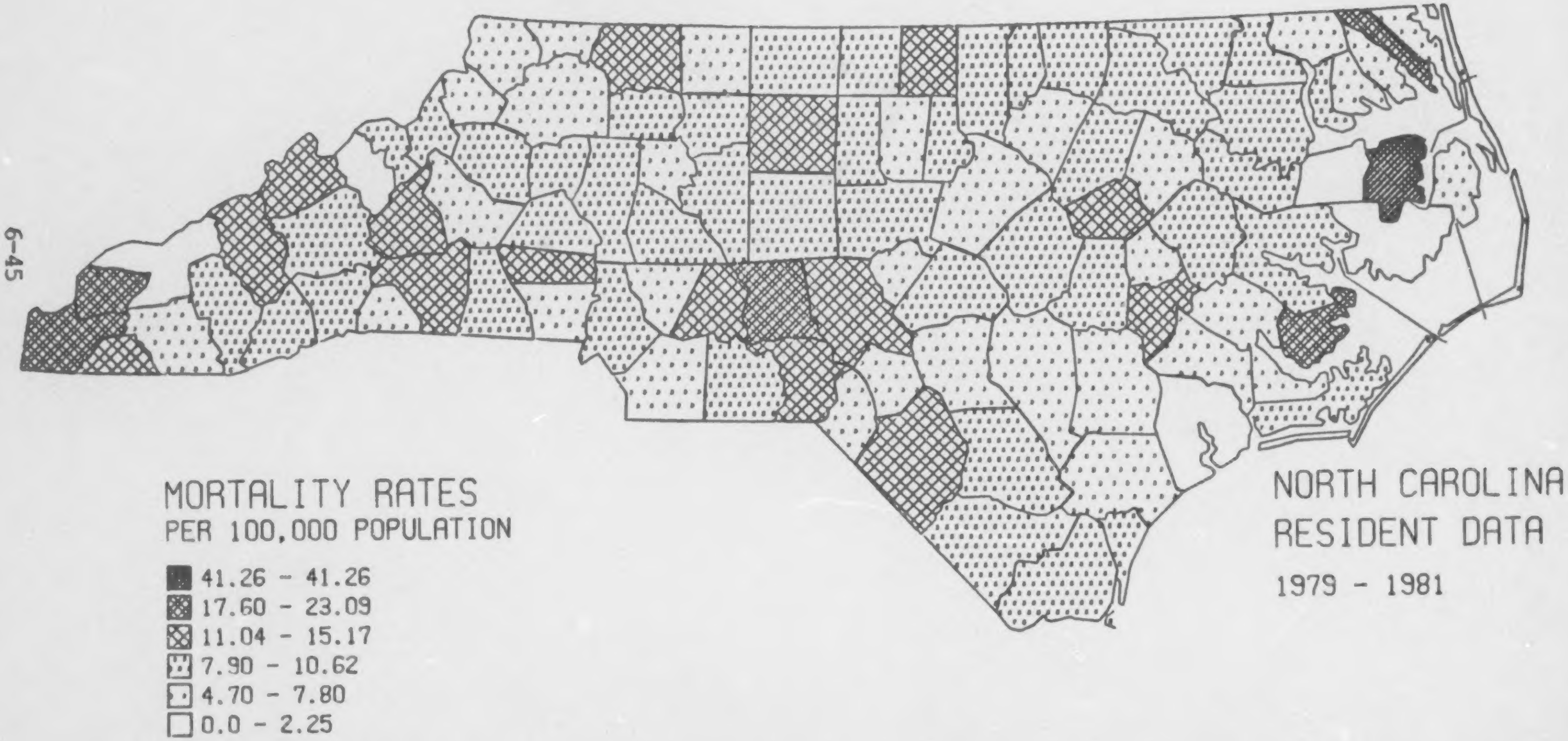
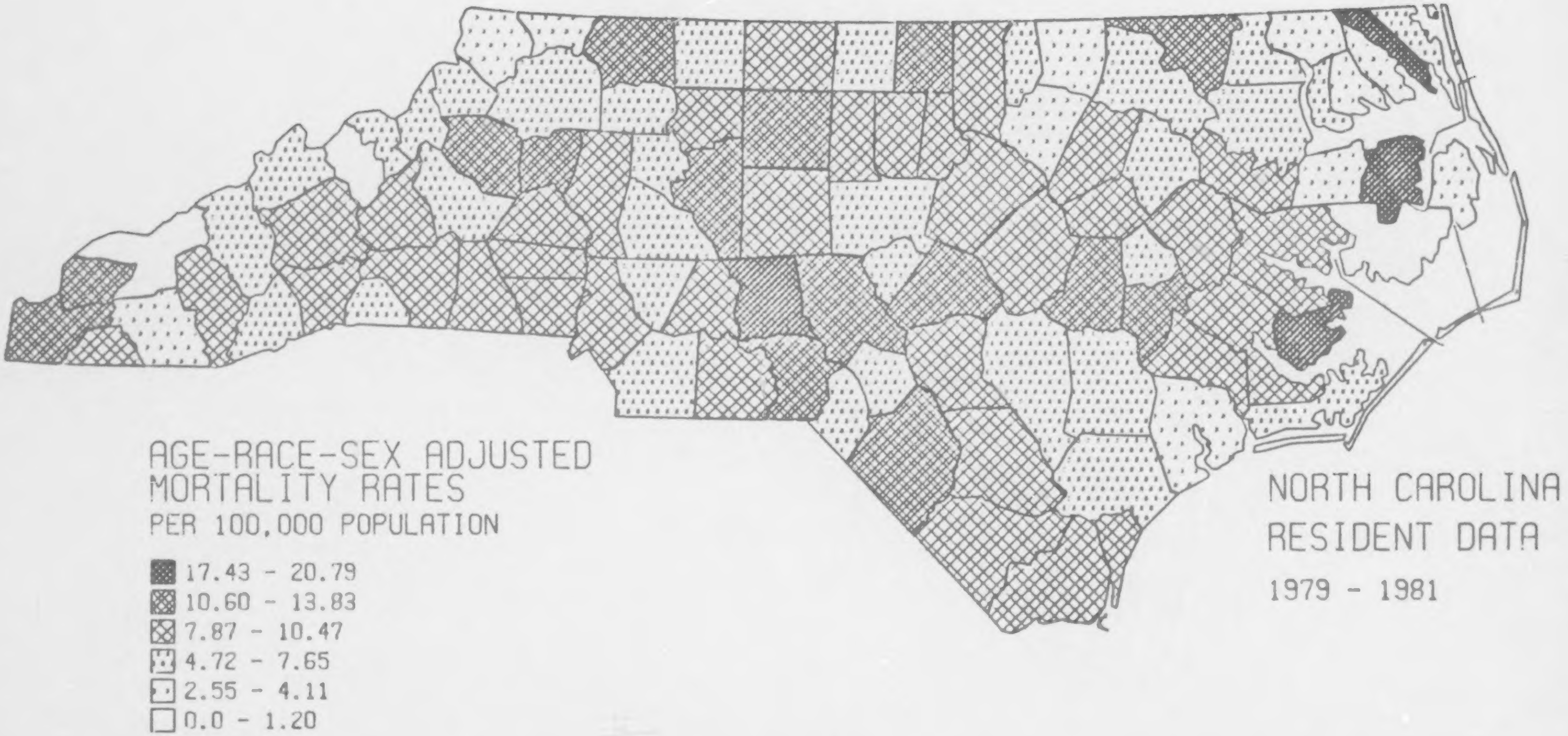

MORTALITY RATES
PER 100,000 POPULATION
■ 41.26 - 41.26
▩ 17.60 - 23.09
▨ 11.04 - 15.17
⁙ 7.90 - 10.62
⁚ 4.70 - 7.80
☐ 0.0 - 2.25
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 12.A

CANCER OF THE PANCREAS


AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 17.43 - 20.79
▩ 10.60 - 13.83
▨ 7.87 - 10.47
⁙ 4.72 - 7.65
⊡ 2.55 - 4.11
☐ 0.0 - 1.20

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 12.B

CANCER OF THE TRACHEA, BRONCHUS, AND LUNG

Lung cancer kills more Americans than any other form of cancer, and mortality from this cancer continues to rise. In North Carolina, the death toll reached 2,564 during 1981 to account for 26 percent of the state's total cancer fatalities.

Between 1970 and 1981, the state's unadjusted lung cancer death rate rose 73 percent with the rate for nonwhite females nearly doubling while the white female rate tripled. Just in the last two years, the age-adjusted rate for white women increased 29 percent while the rate for nonwhite women rose 42 percent. The table on page 6-12 points up the rapid numerical increases in North Carolina's lung cancer mortality in all race-sex categories.

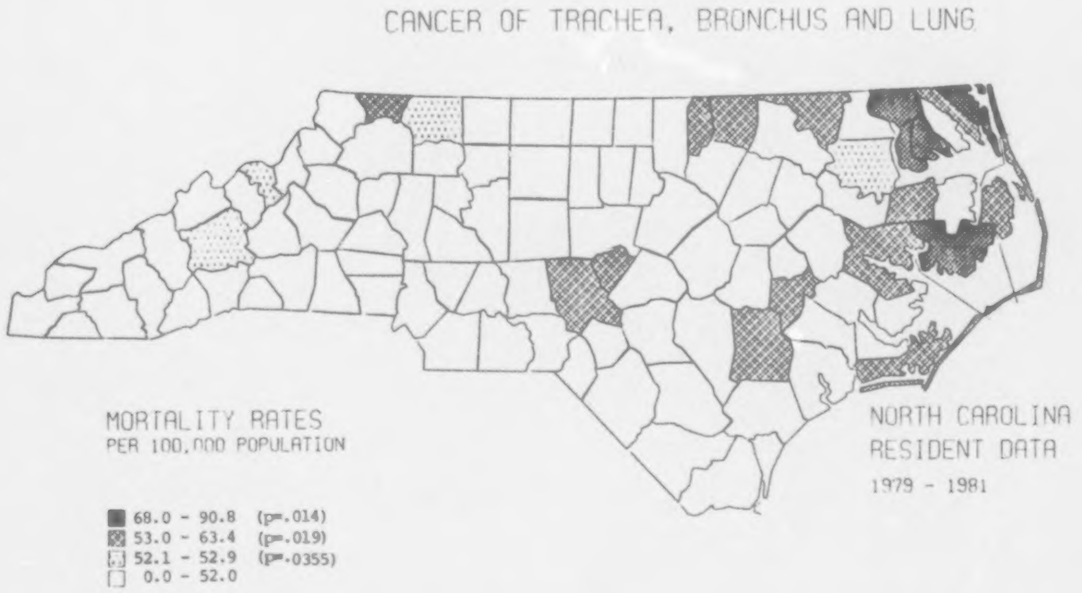
During 1979-81, the state's age-adjusted death rates were: 58.7 for white males, 14.1 for white females, 67.7 for nonwhite males, and 10.4 for nonwhite females. Thus, while decreasing, a wide sex differential in mortality risk remains.

The risk factor profile for lung cancer is familiar, cigarette smoking being the chief factor implicated. Those who smoke two or more packs of cigarettes a day have cancer mortality rates 15 to 25 times greater than nonsmokers, according to the 1982 Surgeon General's Report (10), and the American Cancer Society estimates that cigarette smoking is responsible for 83% of lung cancer cases among men and 43% among women - more than 55% overall (5). Nationwide, the rapid increase in the lung cancer mortality of women has been associated with increases in smoking which reportedly peaked during the 1950s (18). Other factors that have been associated with this disease include a family history of cancer of the lung, colon, and larynx; exposure to airborne carcinogens such as chromates, asbestos, arsenic, bis(chloromethyl) ether, uranium, and polonium; benzopyrene, and iron oxide exposure; alcoholism; recurrent pneumonitis or pneumonia; pulmonary granulomata; and chronic obstructive pulmonary disease (7,25). In North Carolina and elsewhere, a negative association between lung cancer and socio-economic class has been demonstrated (low class, high lung cancer rate), and divorced men in this state have been shown to experience particularly high lung cancer mortality. Occupational distribution also appears explanatory for variations in levels of mortality risk among North Carolina counties. (26,27)

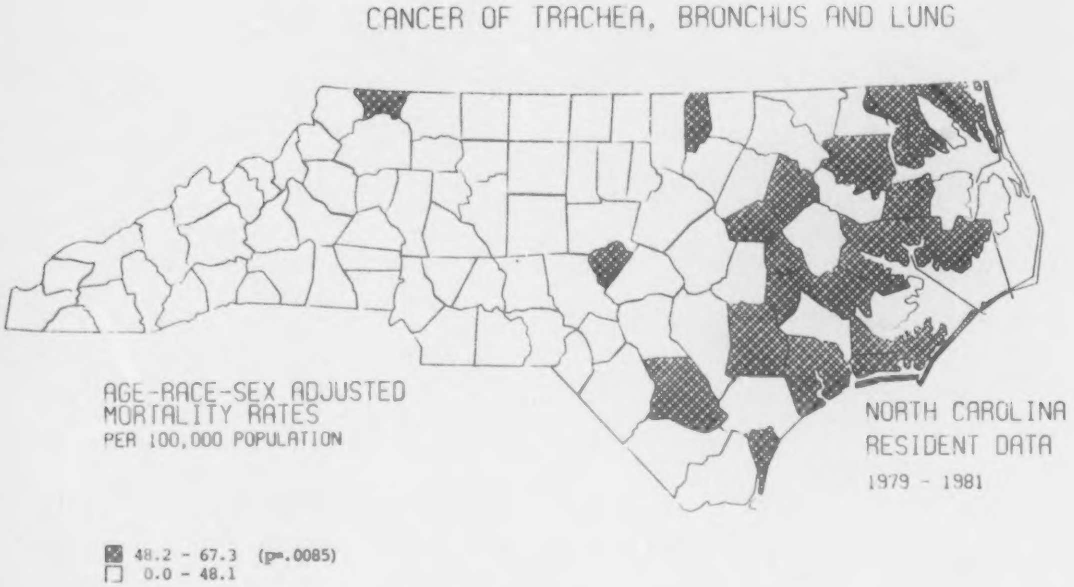
Lung cancer metastasizes quickly and is often hard to detect before it spreads. Hence, the survival rate is low. Based on combined data from four cancer registries (13), the 5-year relative survival rates for lung/bronchus cancer patients diagnosed during 1970-73 were 9% for white males, 14% for white females, 6% for nonwhite males, and 10% for nonwhite females. For both sexes, the race differentials are statistically significant, and only the white rates showed statistically significant improvement over the preceding 10 years.

During 1979-81, residents of eastern North Carolina experienced higher lung cancer mortality than others, both before and after adjustment for age, race, and sex distribution. Moreover, both before and after adjustment, high rates tended to occur in contiguous counties to a statistically significant degree. Nationwide during 1950-69, white mortality was found to be excessive in a belt of counties on the Southeast Atlantic Coast as well as along the Gulf Coast from Texas through Florida. These patterns suggest that environmental factors, in addition to smoking, may be contributing to lung cancer in these predominantly rural and seaport areas. Also, possibly reflecting retirement in-migration, trend data for whites indicate that a number of southern states including N.C. are experiencing increasingly unfavorable rankings among states. (20,21)

In the text map that follows (unadjusted rates), several pockets of contiguous high-rate N.C. counties are identified. In addition, a number of counties contiguous to those pockets also experienced above-average rates, for example, Tyrrell and Pamlico contiguous to the coastal area around Hyde. Time-interval correlation analyses of the unadjusted county rates suggest relative stability of the rates over time.


CANCER OF TRACHEA, BRONCHUS AND LUNG
MORTALITY RATES
PER 100,000 POPULATION
■ 68.0 - 90.8 (p=.014)
▩ 53.0 - 63.4 (p=.019)
▨ 52.1 - 52.9 (p=.0355)
☐ 0.0 - 52.0
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

After adjustment for age, race, and sex, the statistical significance of the pattern of high lung cancer death rates increases. Whereas the clustering pattern of the previous map might occur by chance about 1 time in 28 (p =.0355), the number of adjacencies involved in the adjusted rates of the next map would occur by chance only about 1 time in 118 (p =.0085). Thus, health officials need to be especially aware of these pockets of high lung cancer mortality risk.


CANCER OF TRACHEA, BRONCHUS AND LUNG
AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▨ 48.2 - 67.3 (p=.0085)
☐ 0.0 - 48.1

Counties not involved in the clustering patterns of the text maps should refer to Figures 13.A and 13.B to assess their relative levels of lung cancer mortality. Expanded or new pockets of moderate risk can be identified.

Finally, it is noted that the age-race-sex-adjusted county death rates for lung cancer are correlated with corresponding rates for colon cancer for both periods 1974-78 (r=.33) and 1979-81 (r=.23). The lower Pearson's r for the latter period could reflect the greater instability of 3-year versus 5-year rates.

TABLE 13

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF TRACHEA, BRONCHUS AND LUNG

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	2564	43.01	7165	40.54	40.54
REGIONS					
DHR I WESTERN	854	41.79	2355	38.97	36.87
DHR II N. CENTRAL	561	44.03	1600	42.25	40.35
DHR III S. CENTRAL	564	40.95	1492	36.59	42.93
DHR IV EASTERN	585	46.20	1718	45.63	46.99
HSA I WESTERN	429	41.57	1234	40.37	36.40
HSA II PIEDMONT	480	42.61	1391	41.55	40.16
HSA III S. PIEDMONT	425	42.02	1121	37.53	37.90
HSA IV CAPITAL	386	46.47	984	40.03	44.30
HSA V CARDINAL	346	37.96	1021	37.83	42.28
HSA VI EASTERN	498	47.47	1414	45.25	47.70
COUNTIES					
1 ALAMANCE	52	52.17	148	49.63	42.97
2 ALEXANDER	9	35.23	29	38.46	41.67
3 ALLEGHANY	6	61.70	16	55.26	53.77 *
4 ANSON	10	39.06	34	44.38	43.44
5 ASHE	9	39.59	25	37.35	23.72
6 AVERY	8	54.10	13	29.86	21.88
7 BEAUFORT	21	50.74	66	54.02	48.54
8 BERTIE	12	56.54	33	52.16	48.29
9 BLADEN	21	68.29	47	51.39	49.69
10 BRUNSWICK	18	48.36	56	51.56	45.13
11 BUNCOMBE	86	53.16	254	52.59	45.79
12 BURKE	20	27.29	75	34.50	36.69
13 CABARRUS	44	50.08	109	42.21	36.96
14 CALDWELL	28	41.07	69	34.06	35.07
15 CAMDEN	3	52.82	10	57.73	53.83
16 CARTERET	31	72.25	78	62.26	48.79
17 CASWELL	12	57.11	20	32.17	31.60
18 CATAWBA	36	33.72	106	33.58	36.63
19 CHATHAM	16	47.05	33	32.69	28.83
20 CHEROKEE	4	20.81	26	45.76	28.10
21 CHOWAN	8	63.30	28	73.97	56.69
22 CLAY	5	71.87	7	34.79	20.06
23 CLEVELAND	31	36.97	86	34.42	32.90
24 COLUMBUS	24	46.19	72	46.75	43.01
25 CRAVEN	34	47.33	100	46.73	60.23
26 CUMBERLAND	61	24.28	173	23.25	44.63
27 CURRITUCK	7	61.89	27	79.68	67.03
28 DARE	9	62.23	22	53.91	34.47
29 DAVIDSON	40	35.19	125	36.93	35.88
30 DAVIE	11	41.45	29	38.35	36.93
31 DUPLIN	26	63.64	72	58.78	53.35
32 DURHAM	75	48.45	192	41.80	45.24
33 EDGECOMBE	28	49.88	87	51.65	51.29
34 FORSYTH	102	41.31	266	36.28	36.20
35 FRANKLIN	17	55.66	43	47.57	45.83
36 GASTON	71	43.23	198	40.66	40.53
37 GATES	9	100.33	18	68.03	51.42
38 GRAHAM	5	70.90	11	51.43	37.56
39 GRANVILLE	17	49.19	37	36.12	31.96
40 GREENE	8	49.75	22	45.99	48.83
41 GUILFORD	152	47.81	447	47.02	47.75

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF TRACHEA, BRONCHUS AND LUNG CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	25	45.10	78	46.92	41.31
43 HARNETT	16	26.50	70	39.00	40.08
44 HAYWOOD	19	40.49	57	40.79	39.70
45 HENDERSON	30	49.50	85	48.11	40.92
46 HERTFORD	9	38.27	33	46.96	35.81
47 HOKE	3	14.14	16	26.10	39.73
48 HYDE	6	100.00	14	78.27	62.85
49 IREDELL	29	34.45	77	30.95	29.20
50 JACKSON	9	34.01	28	36.12	33.86
51 JOHNSTON	34	47.32	94	44.16	42.04
52 JONES	0	0.00	4	13.78	14.36
53 LEE	20	53.92	59	53.74	53.58
54 LENOIR	42	69.99	96	53.56	53.15
55 LINCOLN	20	46.61	50	39.47	38.99
56 MCDOWELL	18	50.18	37	35.13	41.57
57 MACON	10	47.16	31	50.23	43.44
58 MADISON	8	45.65	26	51.11	33.82
59 MARTIN	8	30.35	35	44.73	40.30
60 MECKLENBURG	172	41.78	455	37.51	42.99
61 MITCHELL	8	55.11	23	53.03	33.98
62 MONTGOMERY	9	39.64	28	41.81	37.18
63 MOORE	40	77.99	96	63.39	48.00
64 NASH	19	27.78	83	40.93	41.08
65 NEW HANOVER	38	35.98	149	47.87	48.43
66 NORTHAMPTON	16	71.13	36	53.04	43.86
67 ONSLOW	34	29.96	75	22.07	49.05
68 ORANGE	41	52.93	78	33.78	46.02
69 PAMLICO	5	47.92	15	48.45	39.62
70 PASQUOTANK	12	42.21	36	42.29	41.50
71 PENDER	7	31.09	27	40.57	34.38
72 PERQUIMANS	12	124.76	26	90.77	67.29
73 PERSON	18	61.05	38	43.41	40.82
74 PITT	32	34.73	102	37.58	44.76
75 POLK	9	67.08	20	51.11	28.31
76 RANDOLPH	32	34.38	95	34.55	34.61
77 RICHMOND	22	47.97	58	42.56	38.47
78 ROBESON	36	34.98	92	30.11	38.48
79 ROCKINGHAM	26	30.71	102	40.66	36.74
80 ROWAN	47	46.89	119	39.99	32.63
81 RUTHERFORD	18	33.00	55	34.01	27.83
82 SAMPSON	30	60.16	72	48.42	43.97
83 SCOTLAND	11	33.78	31	31.93	34.36
84 STANLY	16	33.16	48	33.22	29.31
85 STOKES	14	41.11	40	40.14	41.47
86 SURRY	29	48.42	93	52.24	45.67
87 SWAIN	9	86.87	15	48.41	39.19
88 TRANSYLVANIA	13	54.46	34	48.17	33.50
89 TYRRELL	2	48.39	6	49.51	37.70
90 UNION	26	36.07	65	30.80	34.49
91 VANCE	20	54.34	62	56.34	59.32
92 WAKE	119	38.67	319	35.25	45.91
93 WARREN	9	55.36	29	59.27	41.80
94 WASHINGTON	10	68.06	25	56.28	56.98
95 WATAUGA	8	24.48	34	35.53	32.28
96 WAYNE	34	34.89	90	30.83	36.08
97 WILKES	17	28.71	56	31.66	28.93
98 WILSON	36	56.88	97	51.36	52.75
99 YADKIN	10	34.45	26	30.32	29.87
100 YANCEY	6	39.97	16	35.63	23.58

* SEE SECTION II

CANCER OF TRACHEA, BRONCHUS AND LUNG

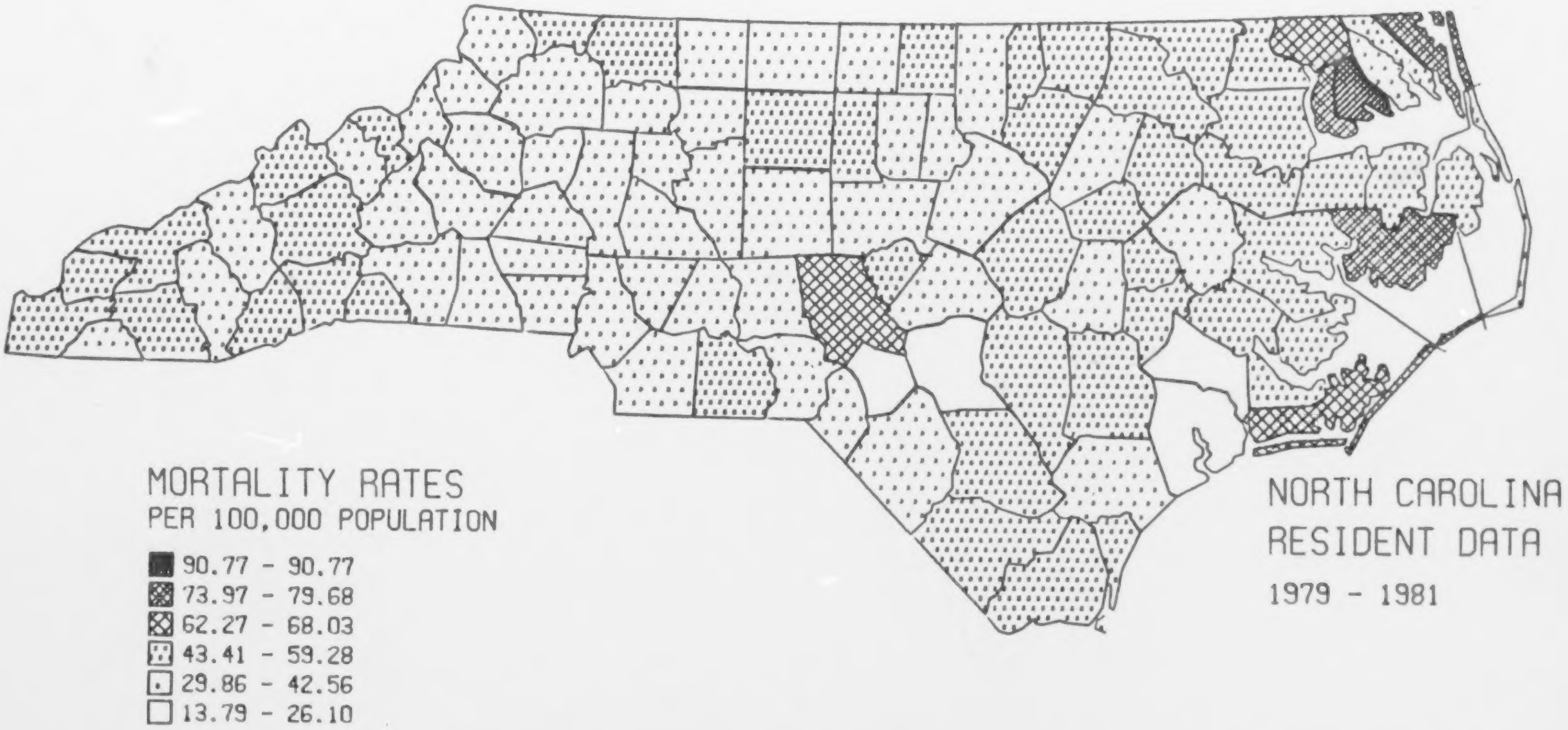

MORTALITY RATES
PER 100,000 POPULATION
■ 90.77 - 90.77
▩ 73.97 - 79.68
▨ 62.27 - 68.03
▦ 43.41 - 59.28
⊡ 29.86 - 42.56
☐ 13.79 - 26.10
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 13.A

CANCER OF TRACHEA, BRONCHUS AND LUNG

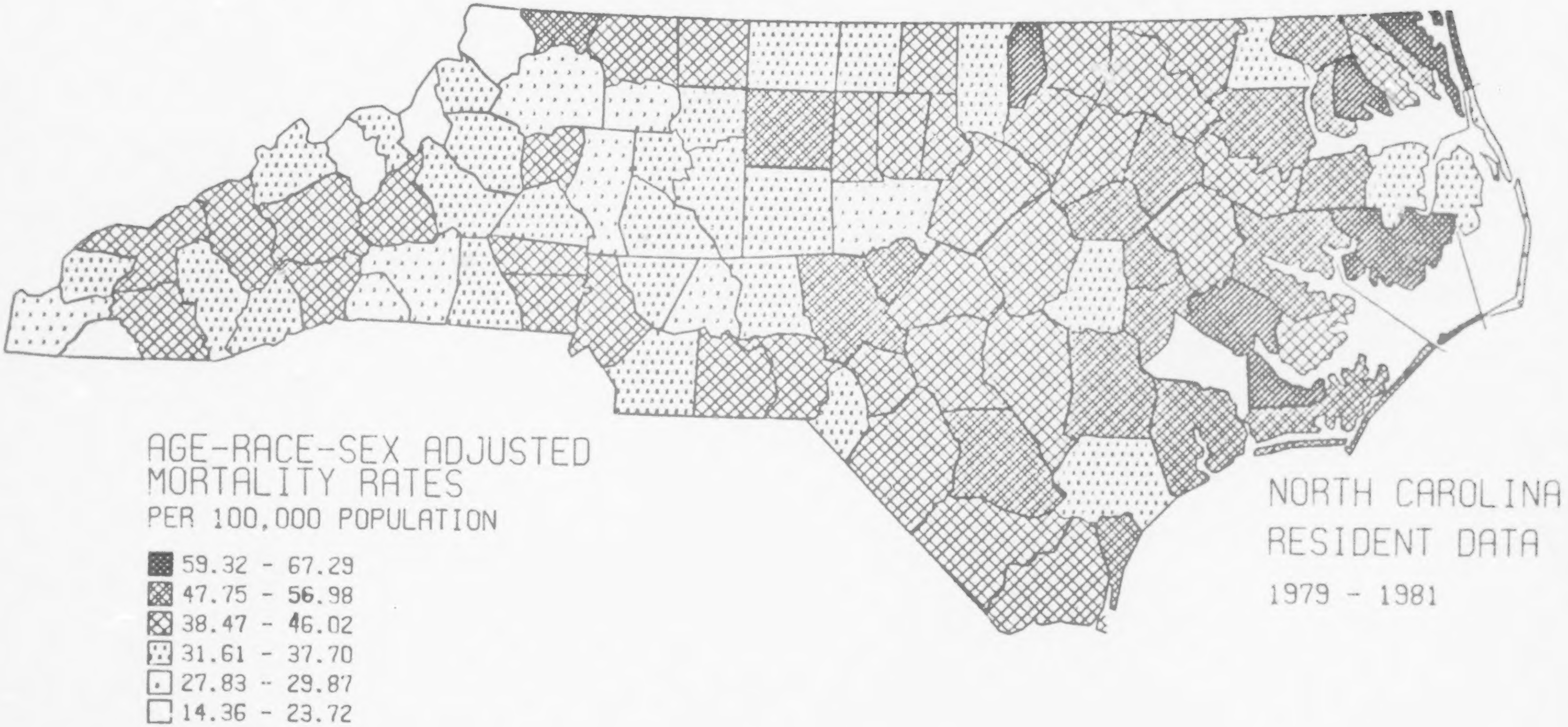

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 59.32 - 67.29
▩ 47.75 - 56.98
▩ 38.47 - 46.02
▩ 31.61 - 37.70
▩ 27.83 - 29.87
☐ 14.36 - 23.72
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 13.B

CANCER OF THE FEMALE BREAST

Breast cancer is both the leading form of cancer and the leading cancer killer among women. According to the American Cancer Society, one of every 11 women will develop breast cancer at some point in life (5).

North Carolina's unadjusted death rate for this disease increased about 30 percent between 1960 and 1970 and an additional 27 percent by 1980. Much of the recent increase appears due to population-aging, and the state's 1979-81 age-adjusted rates of 20.6 for white females and 20.9 for nonwhite females were each below 1979 U.S. rates of 22.8 and 21.5 respectively (17). Nationwide during 1950-69, the geographical pattern for breast cancer involved low rates in the South and otherwise was similar to that for colon cancer (20). Together with lack of a clear race differential in either disease, this suggests that breast and colon cancer may have an environmental factor in common.

Among the risk factors cited for breast cancer are: early menarche; breast abnormalities; never married; infertility; late age at first pregnancy; family history; reduced estriol excretion; reduced 17-oxysteroid excretions; environmental factors such as diet, socioeconomics and chemical exposure; and blood group A (25). Long-term use of estrogens may also be a factor (7). However, a recent study by the American Cancer Society revealed no clear-cut patterns of risk (29).

Both black and white women appear to be experiencing some improvement in breast cancer survival; however, the 5-year relative survival rate of whites (68% overall and 88% if localized) remains substantially above that of blacks

(51% overall and 79% if localized). These findings are from a study of the combined data of four cancer registries (13).

Based on time-interval correlation analyses, the 100 counties' unadjusted rates for breast cancer appear to be stabilizing. However, while Pearson's r for 1974-78 versus 1979-81 was statistically significant, it was not high at only .27.

During 1979-81, high breast cancer death rates occurred across the state with two pockets of high unadjusted rates observed in the west (Figure 14.A). Based on procedures described in Section II of this report, the three-county area of Cherokee, Clay, and Macon represents a statistically significant cluster of high unadjusted rates; the probability that such a cluster occurred by chance alone is about 1 in 1,000 (p =.001). After adjustment for age and race, however, no statistically significant clustering of high rates is observed although moderate to high rates do occur in many contiguous counties (Figure 14.B).

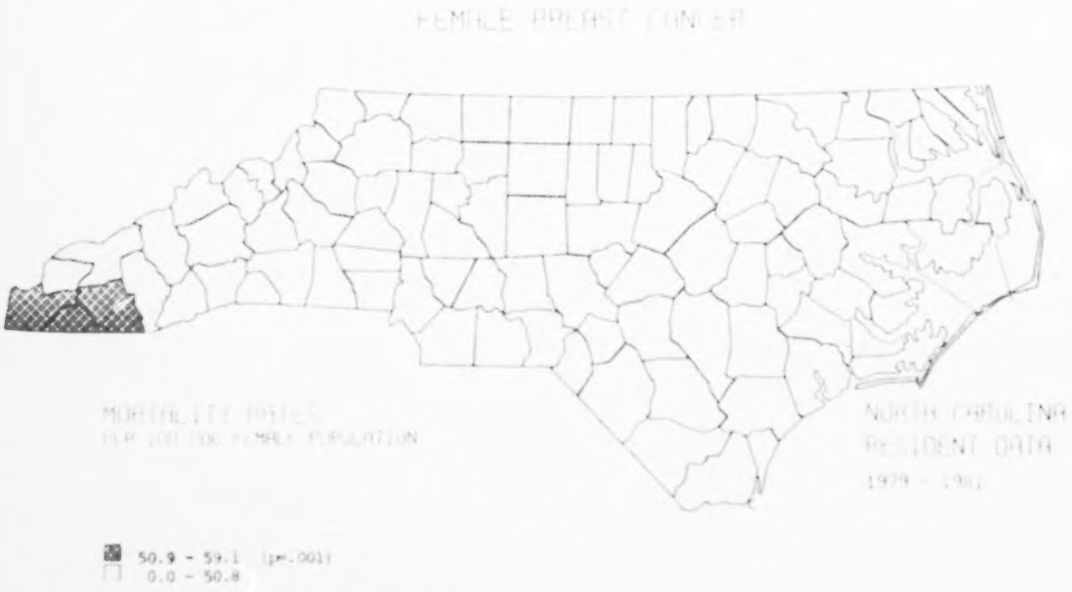

FEMALE BREAST CANCER
MORTALITY RATES
PER 100,000 FEMALE POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▨ 50.9 - 59.1 (p=.001)
☐ 0.0 - 50.8

TABLE 14

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF FEMALE BREAST

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	798	26.01	2328	25.60	25.60
REGIONS					
DHR I WESTERN	280	26.49	819	26.19	24.68
DHR II N. CENTRAL	192	28.92	536	27.16	26.15
DHR III S. CENTRAL	161	22.90	480	23.08	25.92
DHR IV EASTERN	165	25.62	493	25.77	26.04
HSA I WESTERN	149	27.98	438	27.77	24.40
HSA II PIEDMONT	165	28.08	465	26.62	25.94
HSA III S. PIEDMONT	131	24.97	381	24.59	24.52
HSA IV CAPITAL	114	26.50	332	26.09	27.83
HSA V CARDINAL	91	19.70	292	21.38	23.48
HSA VI EASTERN	148	27.85	420	26.56	27.19
COUNTIES					
1 ALAMANCE	16	30.58	59	37.74	32.81
2 ALEXANDER	2	15.55	10	26.32	24.17
3 ALLEGHANY	1	19.92	4	26.75	15.17
4 ANSON	1	7.35	7	17.22	15.40
5 ASHE	2	17.17	9	26.24	17.62
6 AVERY	2	27.07	8	36.80	28.38
7 BEAUFORT	6	27.62	15	23.39	22.05
8 BERTIE	5	44.61	13	38.94	51.34
9 BLADEN	2	12.59	3	6.36	6.04
10 BRUNSWICK	4	21.15	15	27.21	27.52
11 BUNCOMBE	25	29.39	80	31.49	26.96
12 BURKE	9	23.99	25	22.45	20.99
13 CABARRUS	11	24.09	42	31.29	28.83
14 CALDWELL	5	14.36	12	11.59	12.82
15 CAMDEN	1	34.30	1	11.22	10.95
16 CARTERET	8	37.12	23	36.53	29.76
17 CASWELL	4	37.62	9	28.60	25.34
18 CATAWBA	17	30.86	43	26.40	25.33
19 CHATHAM	4	23.11	10	19.46	17.73
20 CHEROKEE	5	50.21	15	50.97	34.64
21 CHOWAN	3	44.67	9	44.88	40.47
22 CLAY	5	142.61	6	59.00	40.65
23 CLEVELAND	11	25.28	30	23.15	21.52
24 COLUMBUS	2	7.40	16	19.98	18.13
25 CRAVEN	7	20.03	22	21.14	23.46
26 CUMBERLAND	20	16.77	62	17.61	26.48
27 CURRITUCK	2	36.25	8	48.21	45.49
28 DARE	3	41.41	3	14.64	10.67
29 DAVIDSON	19	32.63	48	27.70	26.85
30 DAVIE	3	22.30	11	28.65	30.93
31 DUPLIN	7	32.89	19	29.79	28.17
32 DURHAM	27	32.72	79	32.29	33.88
33 EDGECOMBE	5	16.70	20	22.29	25.11
34 FORSYTH	38	29.16	106	27.39	26.58
35 FRANKLIN	6	37.86	13	27.72	23.26
36 GASTON	22	25.71	58	22.87	22.59
37 GATES	0	0.00	5	37.73	41.60
38 GRAHAM	0	0.00	0	0.00	0.00
39 GRANVILLE	8	46.02	19	36.85	31.35
40 GREENE	1	12.15	4	16.34	16.75
41 GUILFORD	50	29.79	135	26.90	27.01

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF FEMALE BREAST CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	10	34.65	24	27.73	26.65
43 HARNETT	4	12.96	18	19.63	19.71
44 HAYWOOD	9	37.18	21	29.14	19.49
45 HENDERSON	10	31.69	31	33.68	30.10
46 HERTFORD	5	40.78	7	19.11	19.04
47 HOKE	3	27.84	5	16.07	24.37
48 HYDE	0	0.00	2	21.78	16.63
49 IREDELL	9	20.69	32	24.88	23.87
50 JACKSON	3	22.21	11	27.86	29.05
51 JOHNSTON	10	26.84	26	23.55	22.07
52 JONES	0	0.00	5	32.61	34.48
53 LEE	2	10.33	13	22.69	22.41
54 LENOIR	12	37.85	27	28.53	28.86
55 LINCOLN	5	22.86	15	23.23	19.74
56 MCDOWELL	6	32.51	19	35.05	35.18
57 MACON	8	73.35	18	56.74	32.21
58 MADISON	1	11.19	6	23.11	16.89
59 MARTIN	4	28.84	14	34.03	32.81
60 MECKLENBURG	52	24.24	167	26.40	28.88
61 MITCHELL	2	26.88	10	44.96	30.35
62 MONTGOMERY	3	25.89	11	32.15	27.59
63 MOORE	16	60.29	32	40.81	34.26
64 NASH	12	33.44	34	31.96	30.80
65 NEW HANOVER	8	14.48	32	19.66	19.24
66 NORTHAMPTON	1	8.73	7	20.29	13.57
67 ONSLOW	10	21.66	25	18.15	30.39
68 ORANGE	5	12.36	18	14.94	20.69
69 PAMLICO	1	18.47	6	37.39	32.61
70 PASQUOTANK	4	27.07	16	36.19	34.67
71 PENDER	3	26.13	10	29.47	28.20
72 PERQUIMANS	0	0.00	4	26.76	24.54
73 PERSON	3	19.65	11	24.28	23.73
74 PITT	8	16.41	32	22.31	24.56
75 POLK	2	28.34	7	33.97	19.95
76 RANDOLPH	9	18.87	23	16.33	18.46
77 RICHMOND	4	16.73	15	21.10	19.89
78 ROBESON	8	14.86	30	18.78	24.43
79 ROCKINGHAM	12	27.24	36	27.56	24.95
80 ROWAN	14	27.08	35	22.80	18.81
81 RUTHERFORD	11	38.64	29	34.37	29.49
82 SAMPSON	8	30.92	20	25.94	22.91
83 SCOTLAND	5	29.39	16	31.56	32.42
84 STANLY	7	28.05	16	21.41	20.27
85 STOKES	5	28.81	8	15.75	13.83
86 SURRY	7	22.57	24	26.03	30.92
87 SWAIN	2	37.24	5	31.19	22.66
88 TRANSYLVANIA	2	16.50	6	16.75	12.06
89 TYRRELL	1	45.76	3	46.84	49.21
90 UNION	11	29.93	16	14.88	17.06
91 VANCE	7	36.34	17	29.52	29.20
92 WAKE	39	24.83	115	24.91	29.73
93 WARREN	3	35.38	11	43.12	47.04
94 WASHINGTON	1	13.23	5	21.92	20.45
95 WATAUGA	0	0.00	5	10.21	10.27
96 WAYNE	19	37.91	42	28.02	28.09
97 WILKES	7	23.23	21	23.32	23.00
98 WILSON	12	35.86	25	25.06	22.67
99 YADKIN	2	13.53	6	13.72	10.19
100 YANCEY	2	26.06	7	30.48	20.33

* SEE SECTION II

CANCER OF FEMALE BREAST

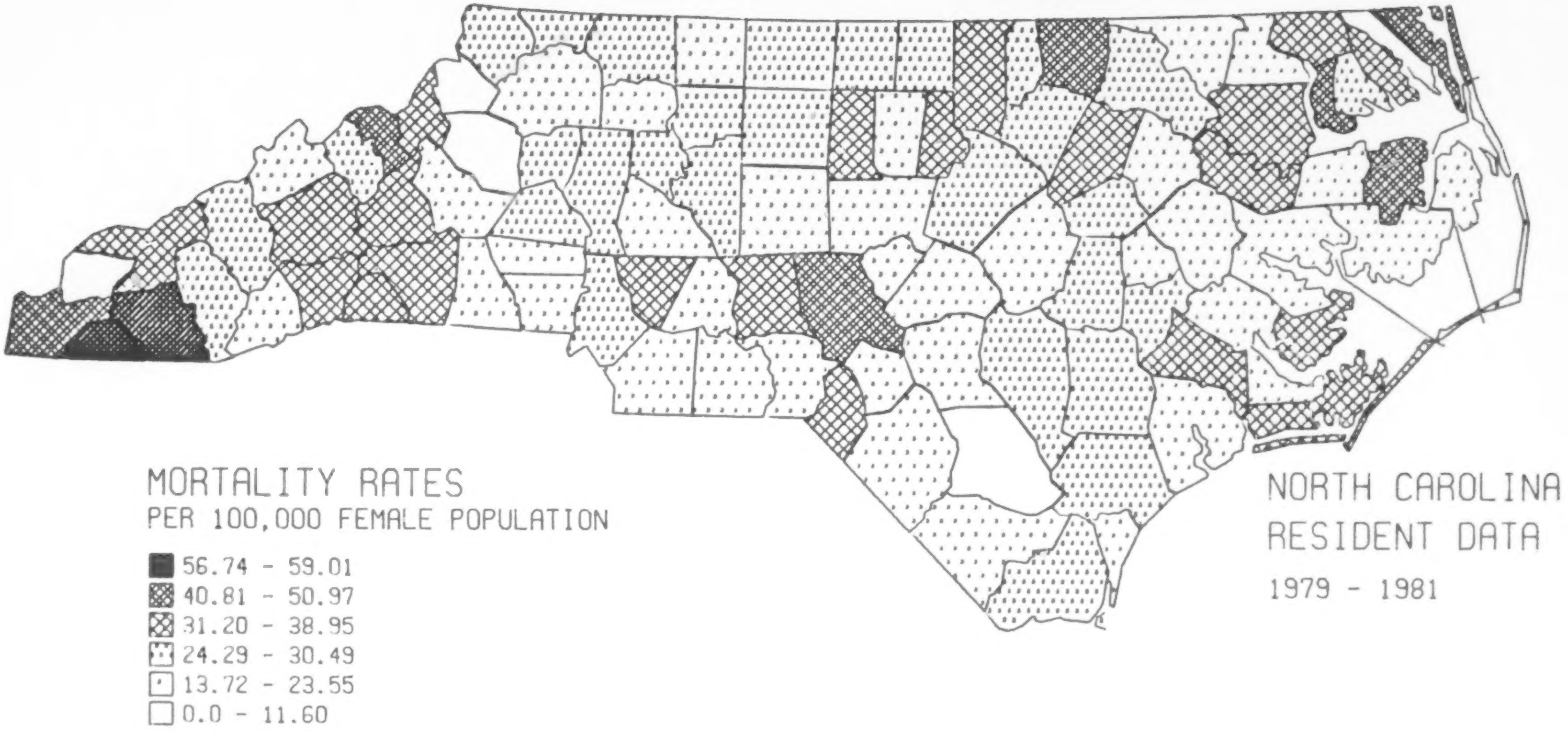

MORTALITY RATES
PER 100,000 FEMALE POPULATION
■ 56.74 - 59.01
▩ 40.81 - 50.97
▨ 31.20 - 38.95
⁙ 24.29 - 30.49
· 13.72 - 23.55
☐ 0.0 - 11.60
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 14.A

CANCER OF FEMALE BREAST

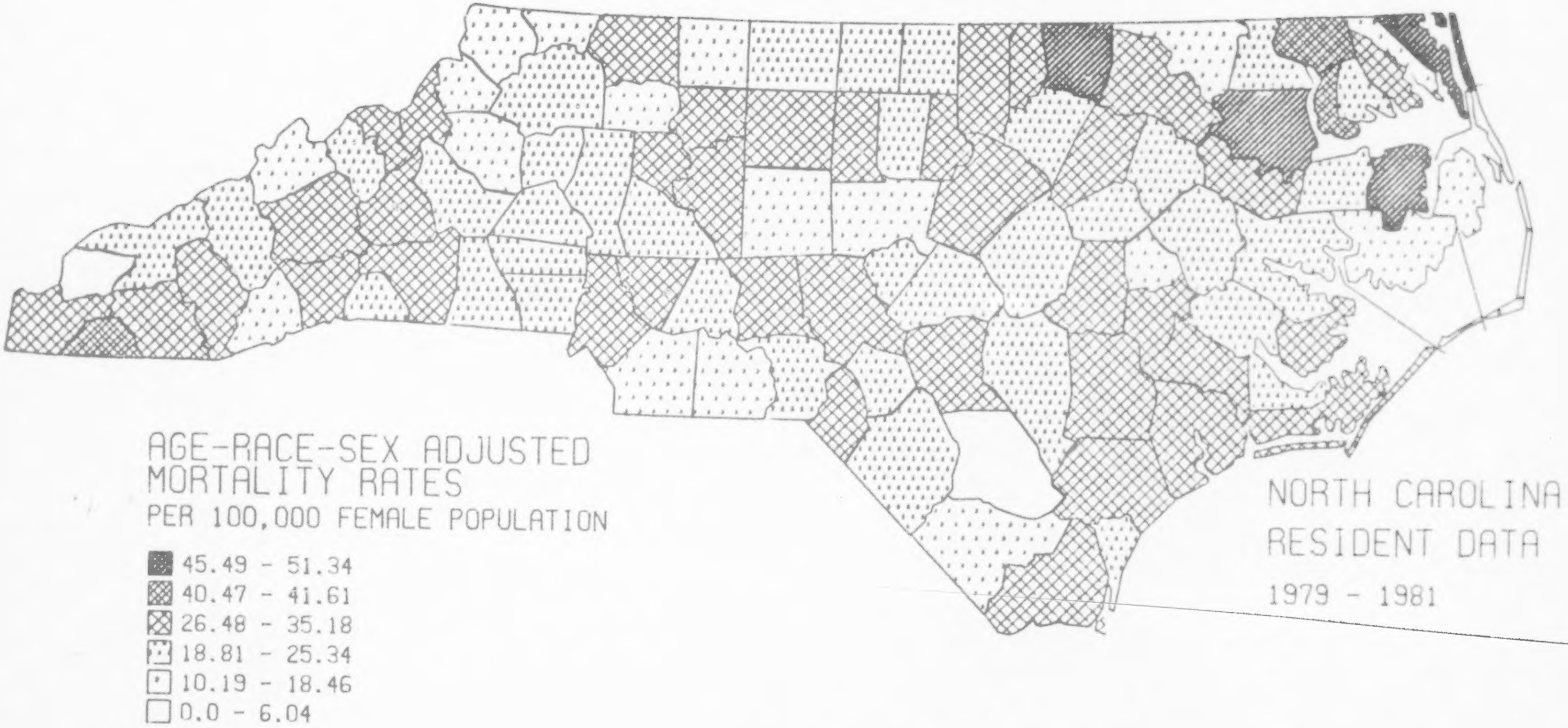

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 FEMALE POPULATION
▩ 45.49 - 51.34
▩ 40.47 - 41.61
▩ 26.48 - 35.18
▩ 18.81 - 25.34
▩ 10.19 - 18.46
☐ 0.0 - 6.04
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 14.B

CANCER OF THE CERVIX UTERI

Due mainly to the Pap test and regular check-ups, cervical cancer mortality has steadily decreased over the years according to the American Cancer Society (5). However, both whites and nonwhites in North Carolina experienced higher rates in 1980 and 1981 than in 1979, suggesting that the downtrend for this cause of mortality may have stalled. Indeed, over the two-year period the white age-adjusted rate increased 16 percent while the nonwhite rate rose 40 percent. However, as the numerical changes in cervical cancer deaths show (see page 6-12), at least the nonwhite rate in 1980 and 1981 may simply reflect correction for an unusually low rate in 1979.

During 1979-81, North Carolina's age-adjusted death rates for this cause were 2.7 for white women versus 9.2 for nonwhite women. This wide differential probably involves late access to health care and perhaps socioeconomic and sexual activity factors often associated with disease incidence: lower economic status; inadequate sanitary conditions or lack of hygiene; noncircumcised male cohabitants; regular intercourse before age 20; multiple sexual partners; chronic cervical inflammatory disease; decreased incidence with obstructive contraceptive devices (e.g. condoms); and positive serologic evidence of herpes virus (25). Recently, researchers at the University of California-San Francisco have also reported excessive levels of antibodies to chlamydia trachomatis among women with cervical tumors (30).

During a recent 10-year period, white women experienced some improvement in their cervical cancer 5-year relative survival rate to 64% while black women experienced notable improvement to a rate of 61%. More whites (44%)

than blacks (38%) were diagnosed at the localized stage. For patients diagnosed at this stage, the survival rates were 82% for whites and 78% for blacks. (13)

During 1979-81, female residents of eastern North Carolina experienced higher cervical cancer mortality than others, both before and after adjustment for age and race. However, high county rates did not tend to cluster to a statistically significant degree. At the same time, the unadjusted county rates appear to be stabilizing to some extent, although a statistically significant correlation between county rates for 1974-78 versus those for 1979-81 was still only .36.

Utilizing Figures 15.A and 15.B, counties should assess their current levels of cervical cancer mortality with particular concern for rates that are higher than in previous years (though caution should be exercised where the numerator of a rate is very small). Even a temporary stall in the state's downward trend in mortality is a concern.

TABLE 15

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF CERVIX UTERI

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	160	5.21	448	4.92	4.92
REGIONS					
DHR I WESTERN	45	4.25	135	4.31	4.64
DHR II N. CENTRAL	38	5.72	95	4.81	4.77
DHR III S. CENTRAL	33	4.69	91	4.37	4.24
DHR IV EASTERN	44	6.83	127	6.63	5.83
HSA I WESTERN	25	4.69	74	4.69	4.99
HSA II PIEDMONT	32	5.47	81	4.63	4.87
HSA III S. PIEDMONT	20	3.81	61	3.93	4.21
HSA IV CAPITAL	20	4.64	56	4.40	4.16
HSA V CARDINAL	23	4.98	63	4.61	4.34
HSA VI EASTERN	40	7.52	113	7.14	6.21
COUNTIES					
1 ALAMANCE	0	0.00	3	1.91	2.02
2 ALEXANDER	1	7.77	2	5.26	3.89
3 ALLEGHANY	0	0.00	0	0.00	0.00
4 ANSON	1	7.35	3	7.38	5.72
5 ASHE	0	0.00	0	0.00	0.00
6 AVERY	0	0.00	0	0.00	0.00
7 BEAUFORT	2	9.20	4	6.23	6.49
8 BERTIE	2	17.84	4	11.98	7.54
9 BLADEN	1	6.29	4	8.48	5.70
10 BRUNSWICK	2	10.57	4	7.25	7.01
11 BUNCOMBE	7	8.23	13	5.11	5.06
12 BURKE	1	2.66	6	5.38	6.69
13 CABARRUS	1	2.19	4	2.98	2.88
14 CALDWELL	1	2.87	3	2.89	2.36
15 CAMDEN	0	0.00	0	0.00	0.00
16 CARTERET	2	9.28	7	11.11	16.02
17 CASWELL	0	0.00	1	3.17	1.50
18 CATAWBA	1	1.81	6	3.68	3.31
19 CHATHAM	0	0.00	3	5.84	5.26
20 CHEROKEE	0	0.00	0	0.00	0.00
21 CHOWAN	1	14.89	2	9.97	7.44
22 CLAY	0	0.00	0	0.00	0.00
23 CLEVELAND	3	6.89	10	7.71	7.38
24 COLUMBUS	2	7.40	4	4.99	4.83
25 CRAVEN	0	0.00	4	3.84	3.40
26 CUMBERLAND	7	5.87	17	4.82	7.46
27 CURRITUCK	0	0.00	0	0.00	0.00
28 DARE	0	0.00	1	4.88	4.22
29 DAVIDSON	5	8.58	9	5.19	6.07
30 DAVIE	1	7.43	3	7.81	7.19
31 DUPLIN	0	0.00	3	4.70	4.71
32 DURHAM	3	3.63	15	6.13	4.91
33 EDGECOMBE	6	20.04	7	7.80	6.05
34 FORSYTH	6	4.60	22	5.68	5.19
35 FRANKLIN	1	6.31	1	2.13	2.35
36 GASTON	4	4.67	16	6.30	6.31
37 GATES	0	0.00	0	0.00	0.00
38 GRAHAM	0	0.00	1	9.31	6.94
39 GRANVILLE	3	17.25	4	7.75	6.51
40 GREENE	1	12.15	3	12.25	6.93
41 GUILFORD	15	8.93	28	5.58	5.60

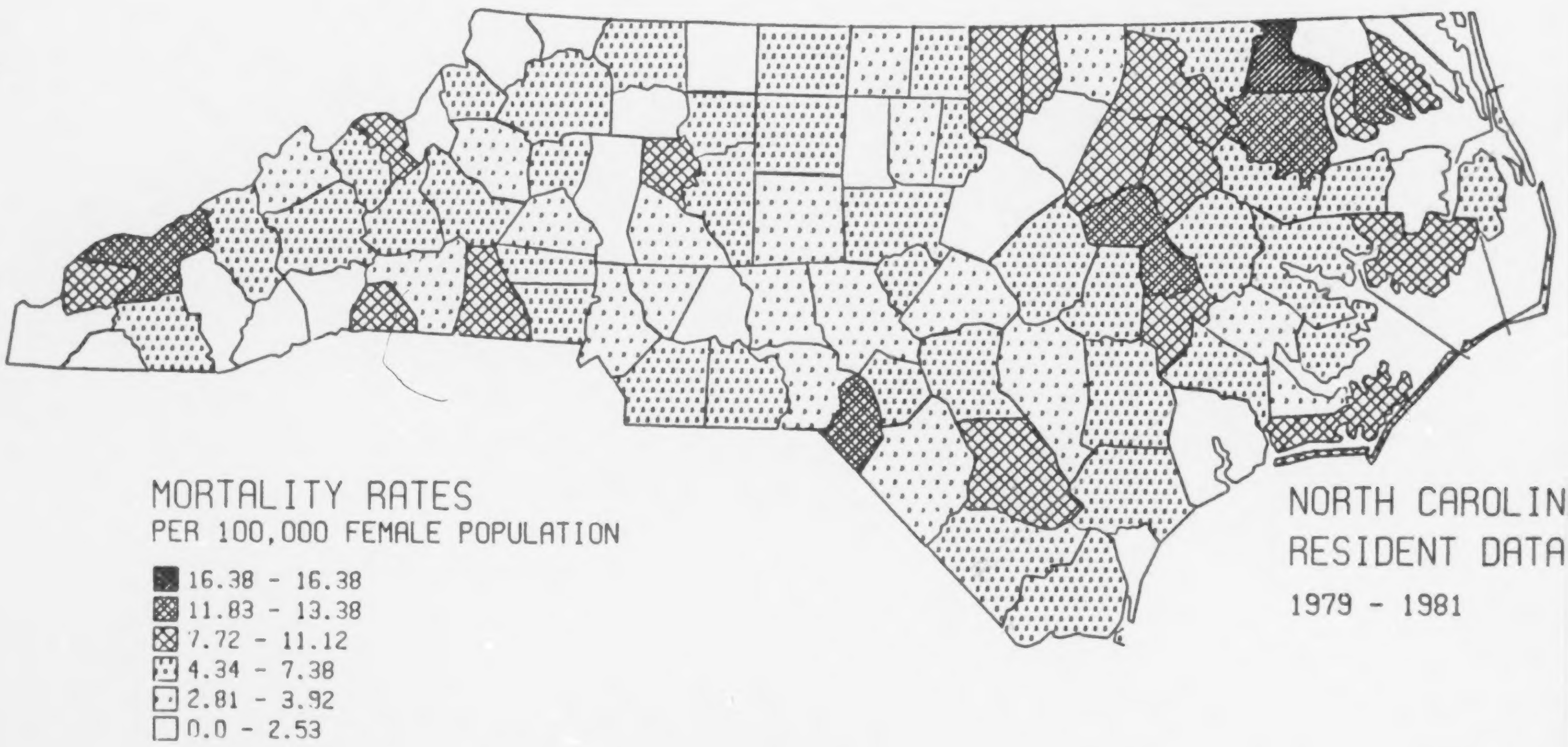
* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF CERVIX UTERI CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	1	3.46	8	9.24	5.96
43 HARNETT	2	6.48	3	3.27	3.45
44 HAYWOOD	1	4.13	5	6.93	4.71
45 HENDERSON	2	6.33	2	2.17	1.66
46 HERTFORD	3	24.47	6	16.38	9.16
47 HOKE	2	18.56	2	6.43	2.91
48 HYDE	1	32.50	1	10.89	6.57
49 IREDELL	2	4.59	3	2.33	2.41
50 JACKSON	0	0.00	1	2.53	6.83
51 JOHNSTON	4	10.73	7	6.34	6.12
52 JONES	0	0.00	1	6.52	7.63
53 LEE	1	5.16	4	6.98	7.06
54 LENOIR	3	9.46	9	9.51	6.52
55 LINCOLN	1	4.57	3	4.64	4.11
56 MCDOWELL	2	10.83	4	7.38	5.94
57 MACON	1	9.16	2	6.30	3.60
58 MADISON	0	0.00	1	3.85	3.30
59 MARTIN	0	0.00	3	7.29	6.87
60 MECKLENBURG	9	4.19	24	3.79	3.96
61 MITCHELL	0	0.00	2	8.99	5.62
62 MONTGOMERY	0	0.00	1	2.92	3.05
63 MOORE	1	3.76	3	3.82	3.89
64 NASH	1	2.78	9	8.46	7.17
65 NEW HANOVER	0	0.00	4	2.45	2.43
66 NORTHAMPTON	1	8.73	2	5.79	2.38
67 ONSLOW	0	0.00	3	2.17	3.74
68 ORANGE	3	7.41	4	3.32	4.45
69 PAMLICO	1	18.47	1	6.23	3.38
70 PASQUOTANK	2	13.53	4	9.04	5.70
71 PENDER	0	0.00	2	5.89	5.02
72 PERQUIMANS	1	19.90	2	13.38	8.33
73 PERSON	0	0.00	2	4.41	3.77
74 PITT	4	8.20	8	5.57	5.74
75 POLK	0	0.00	2	9.70	7.36
76 RANDOLPH	2	4.19	4	2.84	8.02
77 RICHMOND	0	0.00	2	2.81	2.39
78 ROBESON	2	3.71	5	3.13	2.20
79 ROCKINGHAM	2	4.54	6	4.59	4.34
80 ROWAN	0	0.00	5	3.25	3.51
81 RUTHERFORD	1	3.51	3	3.55	5.12
82 SAMPSON	1	3.86	3	3.89	3.78
83 SCOTLAND	2	11.75	6	11.83	10.71
84 STANLY	1	4.00	1	1.33	2.90
85 STOKES	0	0.00	0	0.00	0.00
86 SURRY	1	3.22	4	4.33	3.48
87 SWAIN	1	18.62	2	12.47	13.45
88 TRANSYLVANIA	0	0.00	0	0.00	0.00
89 TYRRELL	0	0.00	0	0.00	0.00
90 UNION	2	5.44	5	4.65	5.24
91 VANCE	2	10.38	6	10.41	8.75
92 WAKE	3	1.91	9	1.95	2.15
93 WARREN	0	0.00	1	3.92	0.91
94 WASHINGTON	1	13.23	1	4.38	2.74
95 WATAUGA	2	11.96	3	6.12	5.46
96 WAYNE	3	5.98	7	4.67	4.46
97 WILKES	1	3.31	5	5.55	4.65
98 WILSON	4	11.95	13	13.03	12.43
99 YADKIN	0	0.00	1	2.28	9.90
100 YANCEY	0	0.00	1	4.35	3.50

* SEE SECTION II

CANCER OF THE CERVIX UTERI


MORTALITY RATES
PER 100,000 FEMALE POPULATION
▓ 16.38 - 16.38
▩ 11.83 - 13.38
▨ 7.72 - 11.12
▦ 4.34 - 7.38
⚀ 2.81 - 3.92
☐ 0.0 - 2.53

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 15.A

CANCER OF THE CERVIX UTERI

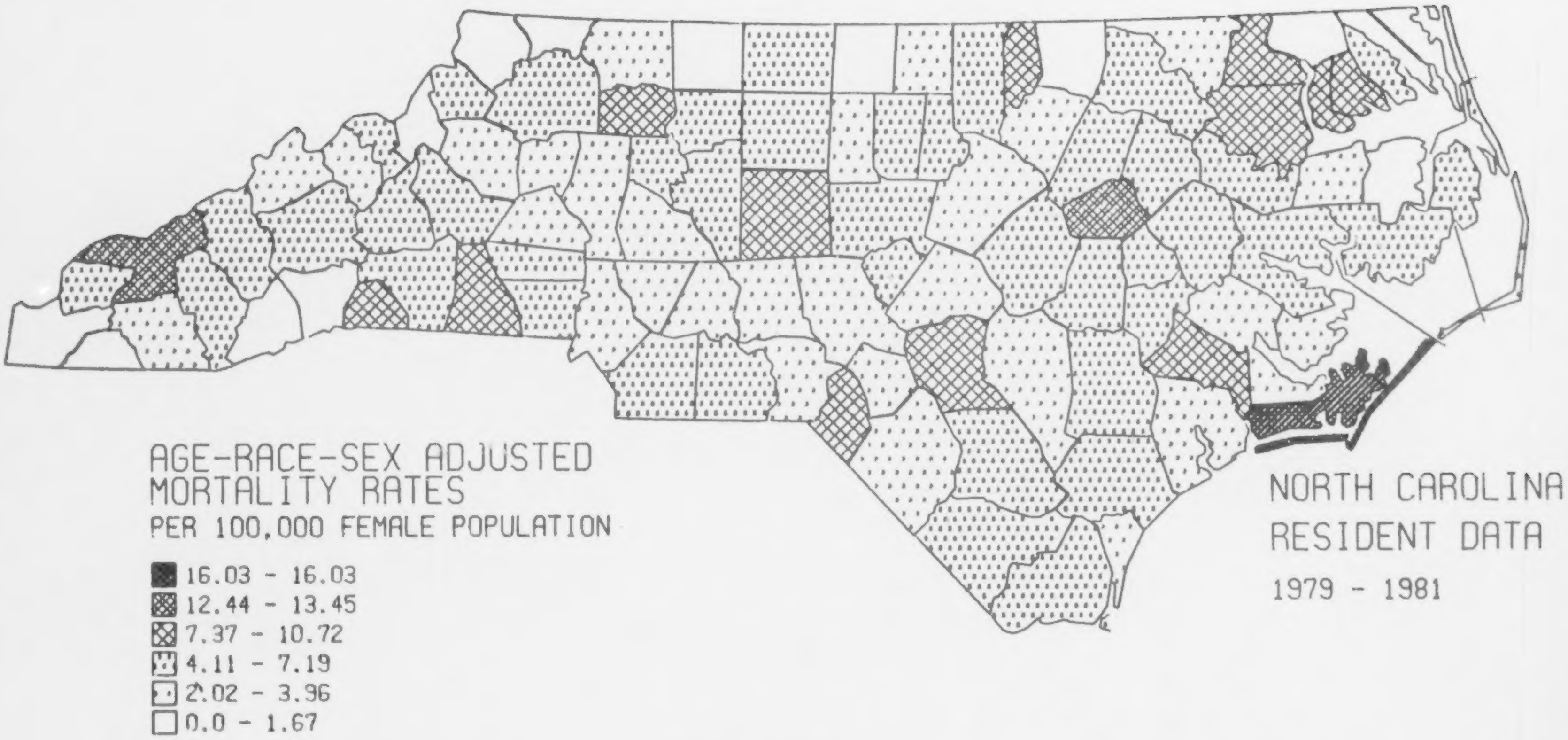

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 FEMALE POPULATION
▩ 16.03 - 16.03
▩ 12.44 - 13.45
▨ 7.37 - 10.72
▦ 4.11 - 7.19
⊡ 2.02 - 3.96
☐ 0.0 - 1.67
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 15.B

CANCER OF THE OVARY AND OTHER UTERINE ADNEXA

Due to the insidious manner in which ovarian cancer develops, the diagnosis is usually late and the survival prognosis poor (31). In a recent 10-year period, the white 5-year relative survival rate showed some improvement to 36% while the black rate remained statistically unstable at 32% (13).

The state's ovarian cancer death rate for white women was about the same in 1981 (7.5) as in 1970 (7.7). At the same time, the nonwhite female rate (7.9) was two-thirds higher than its 1970 level (4.7). Fortunately, the 60 nonwhite ovarian cancer deaths in 1981 appear to represent a one-year increase with the number in 1982 estimated at about half that number. Nevertheless, the clustering of nonwhite deaths in 1981 may represent a phenomenon of interest to researchers; also, white ovarian cancer deaths appear to have reached a new high in 1982. The numbers of these deaths over the past decade are given on page 6-12.

During 1979-81, the state's age-adjusted ovarian cancer death rates were 5.9 for white women and 5.4 for nonwhite women; thus, race does not appear to be a large factor in death from this disease although higher case frequencies among whites, urban and northern U.S. residents, and the nonmarried have been reported. Several studies have reported that menstrual disorders, early cessation of menses, and infertility are associated with ovarian cancer; hence endocrine status may play an etiologic role in cancer of this site. In addition, it has been reported that "low consumption of fiber sources" may be related to hormone cancer of the ovary and prostate, and there is some clinical and epidemiologic evidence that talcum powder may be a cause of ovarian cancer. (5,7,28,32)

Both before and after adjustment for age and race, eastern and western N.C. residents experienced higher 1979-81 ovarian cancer death rates than did central residents. However, statistically significant clustering of the higher rates is not observed.

Counties may examine Figures 16.A and 16.B to determine their relative levels of mortality from this cause. Based on correlations over three time intervals, unadjusted ovarian cancer death rates for the 100 counties appear associated with substantial random fluctuation.

TABLE 16

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF OVARY AND OTHER UTERINE ADNEXA

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE * 1979-81
NORTH CAROLINA	232	7.56	695	7.64	7.64
REGIONS					
DHR I WESTERN	76	7.19	263	8.41	8.15
DHR II N. CENTRAL	54	8.13	158	8.00	7.64
DHR III S. CENTRAL	39	5.54	115	5.53	6.29
DHR IV EASTERN	63	9.78	159	8.31	8.53
HSA I WESTERN	42	7.88	141	8.94	8.64
HSA II PIEDMONT	45	7.65	138	7.90	7.49
HSA III S. PIEDMONT	34	6.48	122	7.87	7.95
HSA IV CAPITAL	34	7.90	82	6.44	6.88
HSA V CARDINAL	25	5.41	79	5.78	6.49
HSA VI EASTERN	52	9.78	133	8.41	8.67
COUNTIES					
1 ALAMANCE	6	11.47	11	7.03	5.89
2 ALEXANDER	0	0.00	2	5.26	4.72
3 ALLEGHANY	0	0.00	0	0.00	0.00
4 ANSON	0	0.00	3	7.38	9.66
5 ASHE	2	17.17	4	11.66	8.46
6 AVERY	0	0.00	1	4.60	3.89
7 BEAUFORT	0	0.00	6	9.35	8.48
8 BERTIE	3	26.77	3	8.98	3.13
9 BLADEN	1	6.29	1	2.12	1.27
10 BRUNSWICK	1	5.28	5	9.07	9.67
11 BUNCOMBE	6	7.05	23	9.05	6.57
12 BURKE	1	2.66	7	6.28	7.31
13 CABARRUS	7	15.33	18	13.41	11.34
14 CALDWELL	2	5.74	4	3.86	3.44
15 CAMDEN	1	34.30	1	11.22	9.20
16 CARTERET	2	9.28	6	9.53	7.80
17 CASWELL	2	18.81	4	12.71	16.70
18 CATAWBA	4	7.26	10	6.14	7.44
19 CHATHAM	1	5.77	3	5.84	5.78
20 CHEROKEE	2	20.08	6	20.38	30.96
21 CHOWAN	0	0.00	2	9.97	10.19
22 CLAY	0	0.00	0	0.00	0.00
23 CLEVELAND	3	6.89	10	7.71	7.55
24 COLUMBUS	1	3.70	1	1.24	0.79
25 CRAVEN	2	5.72	7	6.72	9.27
26 CUMBERLAND	2	1.67	10	2.84	4.52
27 CURRITUCK	0	0.00	0	0.00	0.00
28 DARE	0	0.00	1	4.88	2.85
29 DAVIDSON	9	15.46	24	13.85	13.08
30 DAVIE	2	14.86	3	7.81	6.70
31 DUPLIN	6	28.19	10	15.68	13.80
32 DURHAM	6	7.27	14	5.72	4.80
33 EDGECOMBE	1	3.34	5	5.57	6.66
34 FORSYTH	6	4.60	34	8.78	8.62
35 FRANKLIN	1	6.31	3	6.39	7.93
36 GASTON	6	7.01	17	6.70	6.94
37 GATES	0	0.00	0	0.00	0.00
38 GRAHAM	1	28.24	2	18.63	13.90
39 GRANVILLE	1	5.75	3	5.81	5.53
40 GREENE	0	0.00	2	8.17	7.26
41 GUILFORD	14	8.34	38	7.57	7.43

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF OVARY AND OTHER UTERINE ADNEXA CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE * 1979-81
42 HALIFAX	3	10.39	6	6.93	7.18
43 HARNETT	1	3.24	5	5.45	5.39
44 HAYWOOD	0	0.00	7	9.71	6.53
45 HENDERSON	3	9.50	13	14.12	12.54
46 HERTFORD	3	24.47	6	16.38	13.87
47 HOKE	2	18.56	3	9.64	12.76
48 HYDE	0	0.00	1	10.89	11.61
49 IREDELL	4	9.19	10	7.77	6.54
50 JACKSON	1	7.40	5	12.66	15.77
51 JOHNSTON	4	10.73	7	6.34	6.11
52 JONES	0	0.00	0	0.00	0.00
53 LEE	2	10.33	7	12.22	12.22
54 LENOIR	5	15.77	14	14.79	12.90
55 LINCOLN	0	0.00	8	12.39	13.62
56 MCDOWELL	0	0.00	0	0.00	0.00
57 MACON	3	27.50	8	25.21	14.67
58 MADISON	0	0.00	3	11.55	8.18
59 MARTIN	1	7.21	2	4.86	4.21
60 MECKLENBURG	7	3.26	37	5.85	6.65
61 MITCHELL	1	13.44	1	4.49	2.45
62 MONTGOMERY	0	0.00	2	5.84	4.95
63 MOORE	0	0.00	3	3.82	3.46
64 NASH	1	2.78	5	4.70	4.28
65 NEW HANOVER	6	10.86	11	6.75	6.89
66 NORTHAMPTON	0	0.00	1	2.89	0.93
67 ONSLOW	4	8.66	12	8.71	18.29
68 ORANGE	1	2.47	4	3.32	4.75
69 PAMLICO	2	36.95	2	12.46	10.79
70 PASQUOTANK	4	27.07	6	13.57	14.04
71 PENDER	3	26.13	9	26.53	29.97
72 PERQUIMANS	1	19.90	2	13.38	8.34
73 PERSON	4	26.20	8	17.66	17.18
74 PITT	3	6.15	8	5.57	7.00
75 POLK	2	28.34	5	24.26	19.57
76 RANDOLPH	1	2.09	2	1.42	1.14
77 RICHMOND	1	4.18	9	12.66	11.70
78 ROBESON	2	3.71	6	3.75	4.09
79 ROCKINGHAM	2	4.54	10	7.65	6.93
80 ROWAN	6	11.60	17	11.07	8.92
81 RUTHERFORD	5	17.56	9	10.66	9.03
82 SAMPSON	2	7.73	6	7.78	7.99
83 SCOTLAND	3	17.63	5	9.86	10.63
84 STANLY	2	8.01	11	14.72	16.27
85 STOKES	1	5.76	3	5.90	5.33
86 SURRY	1	3.22	4	4.33	3.24
87 SWAIN	1	18.62	1	6.23	5.83
88 TRANSYLVANIA	1	8.25	3	8.37	6.03
89 TYRRELL	1	45.76	2	31.23	28.61
90 UNION	2	5.44	4	3.72	4.87
91 VANCE	1	5.19	3	5.20	3.69
92 WAKE	11	7.00	27	5.85	7.50
93 WARREN	2	23.59	3	11.76	8.37
94 WASHINGTON	0	0.00	0	0.00	0.00
95 WATAUGA	0	0.00	1	2.04	1.82
96 WAYNE	5	9.97	15	10.00	12.55
97 WILKES	1	3.31	10	11.10	12.38
98 WILSON	4	11.95	8	8.02	7.04
99 YADKIN	1	6.76	5	11.43	8.25
100 YANCEY	3	39.09	6	26.13	17.92

* SEE SECTION II

CANCER OF OVARY AND OTHER UTERINE ADNEXA

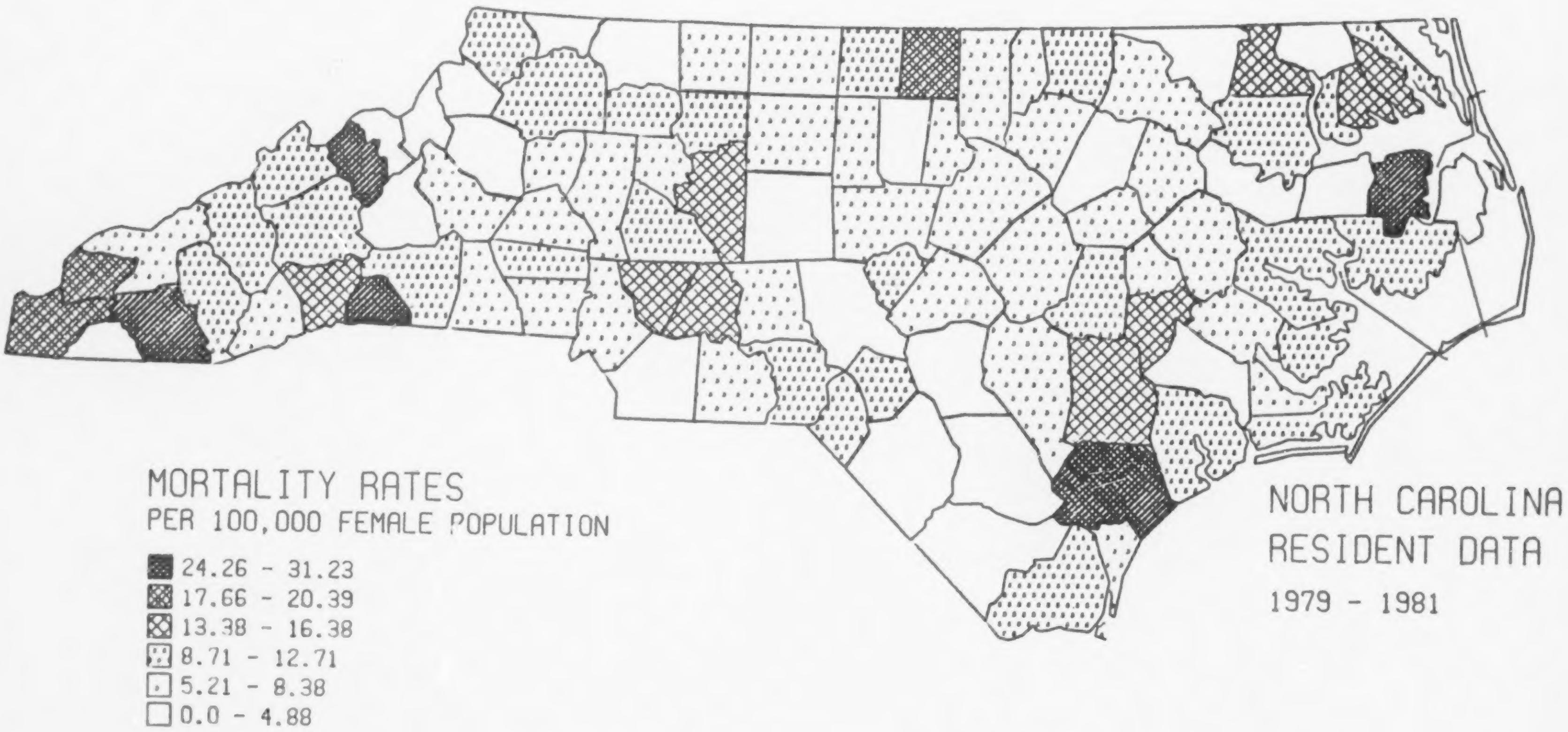

MORTALITY RATES
PER 100,000 FEMALE POPULATION
▩ 24.26 - 31.23
▩ 17.66 - 20.39
▩ 13.38 - 16.38
▨ 8.71 - 12.71
▢ 5.21 - 8.38
☐ 0.0 - 4.88
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 16.A

CANCER OF OVARY AND OTHER UTERINE ADNEXA

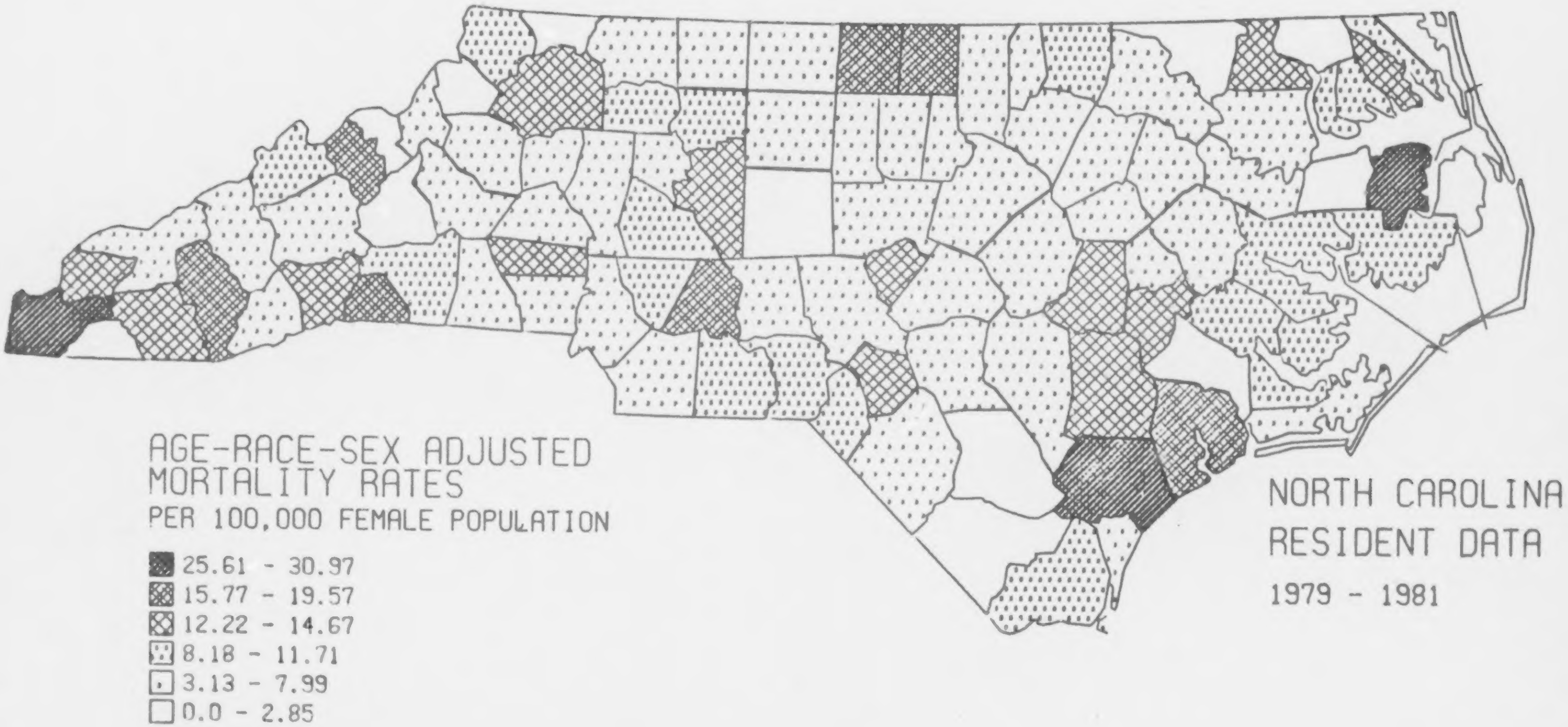

AGE-RACE-SEX ADJUSTED MORTALITY RATES
PER 100,000 FEMALE POPULATION
▩ 25.61 - 30.97
▩ 15.77 - 19.57
▩ 12.22 - 14.67
▩ 8.18 - 11.71
▩ 3.13 - 7.99
☐ 0.0 - 2.85
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 16.B

CANCER OF THE PROSTATE

During 1981, cancer of the prostate killed more North Carolina males than any other form of cancer except lung cancer, and the death rate for this disease is steadily rising. The white male rate in 1981 (19.2) was 39 percent above its 1970 level while the nonwhite rate (34.3) was up by 24 percent. While much of this increase is due to aging of the population, it is noted that the white male age-adjusted rate increased 9 percent between 1979 and 1981.

The race differential in mortality is even greater than indicated by the above unadjusted rates; the state's 1979-81 age-adjusted rates were 13.8 for white males and 33.3 for nonwhite males. Age-adjusted mortality also appears higher for married and widowed men than for divorced and never-married men in North Carolina (27). Other studies have shown a higher northern than southern frequency in the U.S. and higher frequencies among professional workers and relatives of prostatic cancer decedents (28). Cancer of the prostate may also be associated with exposure to cadmium (7). Among North Carolina counties, occupational distribution has been shown to contribute significantly to the variation in age-race-adjusted rates for this cause of death (26), and one nationwide case-history study found greater than expected numbers of ministers, farmers, plumbers, rubber workers, coal miners, and some types of retailers among prostate cancer patients (7).

In the etiology of this disease, a hormone relationship is also suspected (33). In this regard, it has been reported that "low consumption of fiber sources" may be related to hormone cancer of the ovary and prostate (5).

Cancer of the prostate has also been linked to fat consumption (7).

In a recent 10-year period, both whites and blacks experienced notable improvements in their 5-year relative survival rates. Still, there remains a statistically significant difference between the rate for whites (63%) and that for blacks (55%). (13)

Counties may examine Figures 17.A and 17.B to ascertain their relative levels of mortality from this cause. While higher county rates are not found to cluster to a statistically significant degree, several contiguous counties did experience above-average rates during the 1979-81 period. Still, based on time-interval correlation analyses of unadjusted county rates, geographical propensities for death from this cause appear to have dissipated greatly over time with Pearson's r dropping from .57 for the interval 1968-70 versus 1973-75 to .36 for the abutting periods 1974-78 and 1979-81.

TABLE 17

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CANCER OF PROSTATE

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	660	22.81	1851	21.57	21.57
REGIONS					
DHR I WESTERN	218	22.09	630	21.59	21.77
DHR II N. CENTRAL	154	25.23	418	23.05	22.32
DHR III S. CENTRAL	130	19.28	392	19.62	21.74
DHR IV EASTERN	158	25.39	411	22.19	20.89
HSA I WESTERN	108	21.61	334	22.57	20.60
HSA II PIEDMONT	122	22.64	347	21.67	21.94
HSA III S. PIEDMONT	110	22.59	296	20.59	22.58
HSA IV CAPITAL	93	23.22	252	21.25	21.23
HSA V CARDINAL	94	20.90	278	20.85	22.29
HSA VI EASTERN	133	25.69	344	22.29	20.98
COUNTIES					
1 ALAMANCE	14	29.56	27	19.03	18.29
2 ALEXANDER	2	15.76	7	18.71	17.71
3 ALLEGHANY	0	0.00	2	14.28	6.60
4 ANSON	5	41.66	8	22.24	14.81
5 ASHE	4	36.08	12	36.76	18.50
6 AVERY	3	40.55	5	22.93	16.99
7 BEAUFORT	5	25.42	11	18.95	13.47
8 BERTIE	4	39.94	9	30.11	25.29
9 BLADEN	2	13.44	12	27.09	20.66
10 BRUNSWICK	3	16.38	9	16.83	14.76
11 BUNCOMBE	22	28.68	63	27.51	23.63
12 BURKE	10	27.95	24	22.63	24.43
13 CABARRUS	8	18.95	21	16.93	17.70
14 CALDWELL	4	11.98	18	18.15	16.65
15 CAMDEN	4	144.71	6	71.30	50.51
16 CARTERET	7	32.77	16	25.67	23.69
17 CASWELL	3	28.91	10	32.58	25.07
18 CATAWBA	10	19.35	31	20.29	26.68
19 CHATHAM	5	29.94	10	20.18	15.37
20 CHEROKEE	2	21.59	12	43.81	22.15
21 CHOWAN	2	33.76	6	33.71	14.86
22 CLAY	0	0.00	1	10.04	3.91
23 CLEVELAND	8	19.83	27	22.45	22.26
24 COLUMBUS	5	20.06	21	28.41	26.47
25 CRAVEN	13	35.24	27	24.55	29.71
26 CUMBERLAND	14	10.61	45	11.48	24.67
27 CURRITUCK	2	34.52	5	28.91	26.46
28 DARE	0	0.00	1	4.92	3.62
29 DAVIDSON	5	9.01	18	10.89	11.82
30 DAVIE	3	22.93	7	18.81	18.12
31 DUPLIN	5	25.54	13	22.14	16.32
32 DURHAM	22	30.43	55	25.61	22.58
33 EDGECOMBE	9	34.35	24	30.48	23.49
34 FORSYTH	29	24.83	82	23.68	23.64
35 FRANKLIN	7	47.65	12	27.59	20.28
36 GASTON	16	20.33	55	23.57	27.60
37 GATES	0	0.00	5	37.85	25.70
38 GRAHAM	0	0.00	2	18.77	49.03*
39 GRANVILLE	12	69.88	16	31.45	23.33
40 GREENE	2	25.48	6	25.69	20.77
41 GUILFORD	42	27.97	108	24.06	24.93

* SEE SECTION II

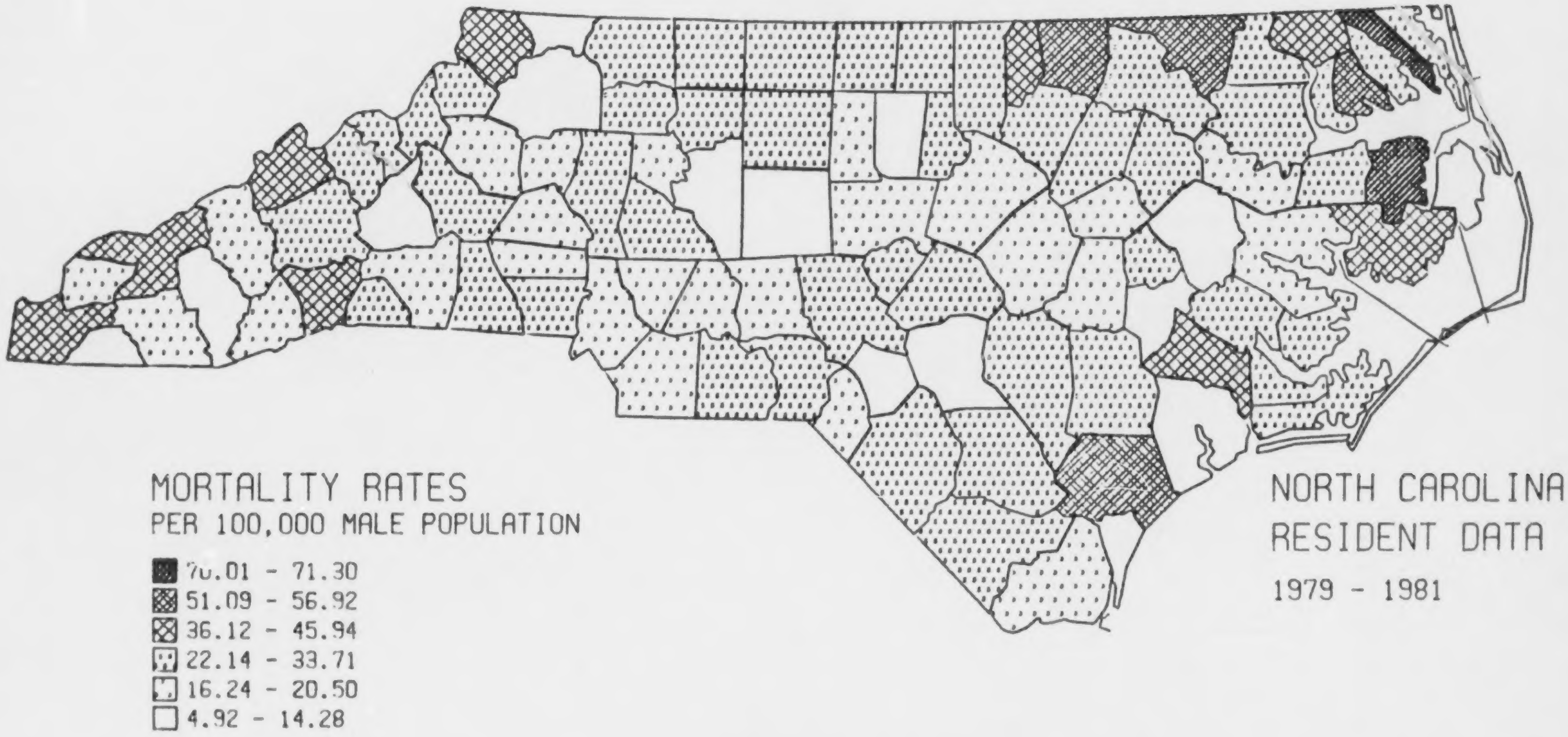
MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CANCER OF PROSTATE CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	7	26,34	23	28,85	23,03
43 HARNETT	12	40,68	26	29,61	32,37
44 HAYWOOD	6	26,42	13	19,21	10,81
45 HENDERSON	8	27,53	31	36,62	22,94*
46 HERTFORD	5	44,42	10	29,72	18,77
47 HOKE	0	0.00	2	6,62	9,02
48 HYDE	3	102,59	4	45,94	18,66
49 IREDELL	10	24,59	28	23,30	20,70
50 JACKSON	1	7,71	5	13,14	9,70
51 JOHNSTON	4	11,56	17	16,59	16,56
52 JONES	2	43,83	5	36,54	13,93
53 LEE	3	16,91	14	26,66	27,76
54 LENOIR	6	21,19	11	13,00	10,07
55 LINCOLN	5	23,76	11	17,71	20,77
56 MCDOWELL	0	0.00	4	7,82	5,32
57 MACON	3	29,13	6	20,01	40,66*
58 MADISON	2	23,28	9	36,12	18,27
59 MARTIN	4	32,03	7	18,86	14,46
60 MECKLENBURG	39	19,78	119	20,50	25,28
61 MITCHELL	3	42,39	5	23,66	11,67
62 MONTGOMERY	3	26,98	6	18,32	15,06
63 MOORE	9	36,35	22	30,12	21,02
64 NASH	7	21,53	22	22,82	21,47
65 NEW HANOVER	9	17,86	20	13,47	14,26
66 NORTHAMPTON	5	45,24	19	56,91	28.70
67 ONSLOW	4	5,94	17	8,41	27,14
68 ORANGE	3	8,10	13	11,77	14,29
69 PAMLICO	1	19,91	5	33,52	20,65
70 PASQUOTANK	2	14,64	13	31,77	26.04
71 PENDER	8	72,50	17	52,10	35,53
72 PERQUIMANS	2	43,52	7	51,09	28.57
73 PERSON	4	28,12	11	26,04	21,16
74 PITT	7	16,13	17	13,28	13,79
75 POLK	3	47,17	6	32,38	21,48
76 RANDOLPH	5	11,01	18	13,42	13,14
77 RICHMOND	4	18,22	16	24,53	21.21
78 ROBESON	10	20,38	46	31,56	28.88
79 ROCKINGHAM	8	19,70	34	28,27	26.80
80 ROWAN	18	37,08	32	22,21	18.89
81 RUTHERFORD	5	19,17	14	18,10	12.97
82 SAMPSON	7	29,16	19	26,54	19.00
83 SCOTLAND	3	19,29	9	19,40	20.87
84 STANLY	7	30,06	13	18,63	16.58
85 STOKES	3	17,96	11	22,51	30.58
86 SURRY	8	27,70	22	25,63	21.24
87 SWAIN	3	60,12	6	40,11	30.10
88 TRANSYLVANIA	2	17,01	6	17,25	10.97
89 TYRRELL	2	102,66	4	70,01	42.21*
90 UNION	7	19,81	17	16,42	19.06
91 VANCE	7	39,89	19	36,21	28.48
92 WAKE	24	15,92	72	16,23	22.48
93 WARREN	2	25,71	13	55,51	17.07
94 WASHINGTON	3	42,04	7	32,39	27.79
95 WATAUGA	5	31,33	11	23,54	17.96
96 WAYNE	10	21,12	27	19,01	22.68
97 WILKES	1	3,44	8	9,21	11.14
98 WILSON	10	33,52	17	19,07	18.01
99 YADKIN	2	14,04	10	23,79	22.71
100 YANCEY	1	13,62	6	27,34	14.60

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

CANCER OF THE PROSTATE


MORTALITY RATES
PER 100,000 MALE POPULATION
■ 70.01 - 71.30
▩ 51.09 - 56.92
▨ 36.12 - 45.94
⊡ 22.14 - 33.71
⊡ 16.24 - 20.50
□ 4.92 - 14.28

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 17.A

CANCER OF THE PROSTATE

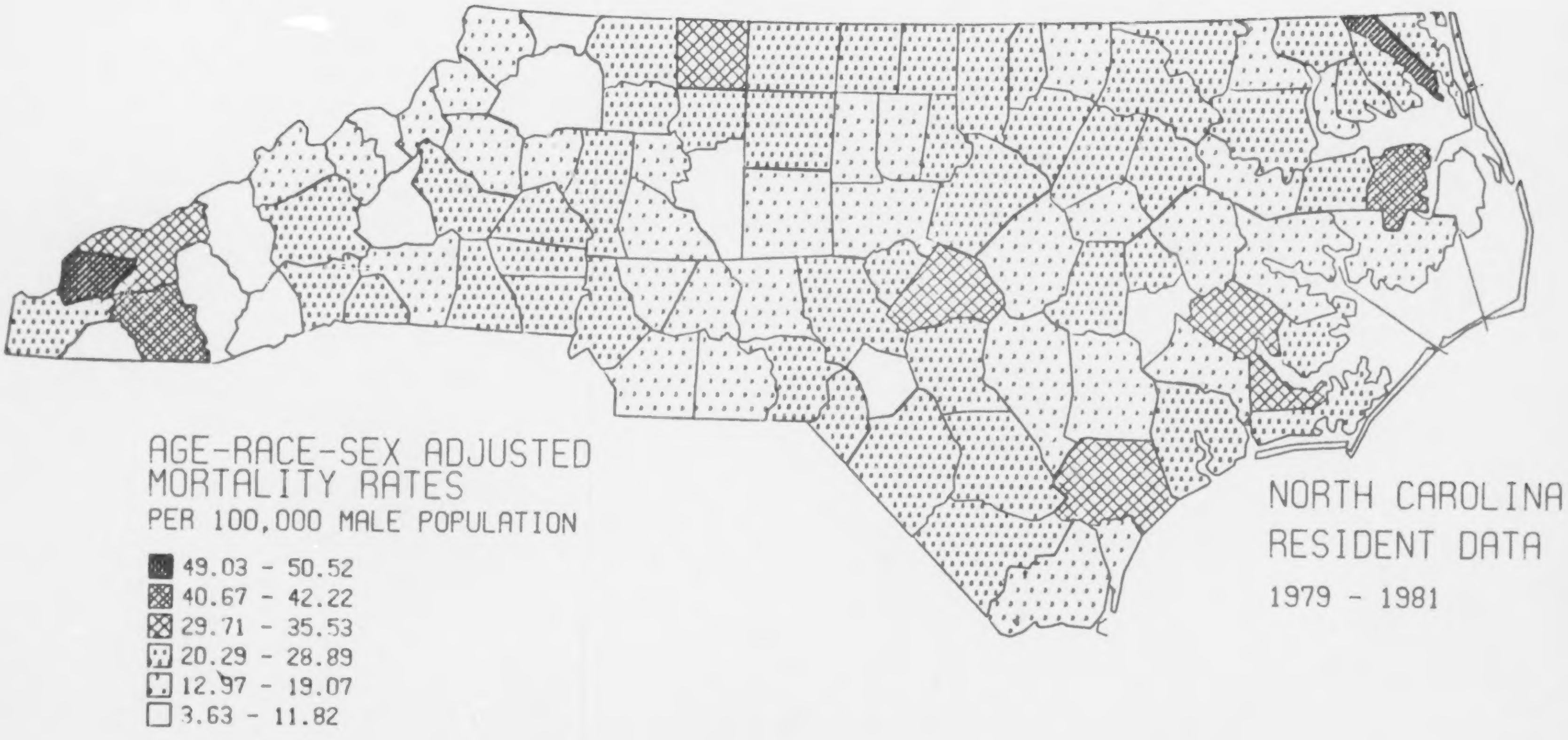

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 MALE POPULATION
▩ 49.03 - 50.52
▩ 40.67 - 42.22
▩ 29.71 - 35.53
▨ 20.29 - 28.89
▨ 12.97 - 19.07
☐ 3.63 - 11.82
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 17.B

LEUKEMIA

This cancer of the blood-forming tissue strikes both sexes and all ages and may be difficult to detect early because symptoms often appear to be those of a less serious condition. Nevertheless, over a recent 10-year period, there was dramatic improvement in the 5-year relative survival of patients with acute lymphocytic leukemia: from 4% to 27% in white males, from 3% to 29% in white females, and from 4% to 34% in white children (information on black children was insufficient for analysis). At the same time, patients with some types of leukemia continued to experience poor survival; for example, whites with acute granulocytic (myeloid) leukemia experienced 5-year relative survival rates of only 3% for males and 2% for females. (13)

For all types of leukemia combined, North Carolina's death rate of 6.6 in 1981 compares to 6.1 in 1970. As indicated by the next table, the small increase appears due to adult myeloid leukemia and probably reflects aging of the population to some extent. However, age-adjusted rates for 1979 and 1981 do indicate rate increases among white females (15%) and nonwhite males (18%). Of interest here are reports that acute leukemia has been recognized to follow "irradiation, benzene exposure, and in recent years, extensive radiation and cytotoxic drug treatment (especially alkylating agents) of patients with Hodgkin's disease, breast and ovarian carcinoma, myeloma and CNS tumors" (34). Users of this report should also note that, among 48 states and D.C., North Carolina's rank in age-adjusted mortality appears to be worsening for whites of both sexes (20).

For children, the following table indicates reduced mortality from both the lymphoid and myeloid types of leukemia with a greater reduction in the lymphoid type occurring at younger ages. The reader is warned, however, that the type-specific rates exclude a number of deaths involving unspecified cell type (74 in 1970 and 91 in 1981) and thus do not reflect "true" mortality for these types.

Leukemia Deaths Per 100,000 Population
North Carolina

	All Types		Lymphoid Type		Myeloid Type	
	1970	1981	1970	1981	1970	1981
All Ages	6.1	6.6	2.3	2.0	2.1	2.9
Ages 0-19	2.6	1.5	1.3	0.9	0.5	0.3
0-9	3.3	1.8	1.7	1.1	0.4	0.4
10-19	2.0	1.4	0.9	0.8	0.5	0.3

During 1979-81, the state's age-adjusted leukemia death rates were 6.8 for white males, 4.6 for white females, 5.9 for nonwhite males, and 3.0 for nonwhite females. Thus, males and whites are experiencing higher mortality risk. These rates are about the same as corresponding national rates in 1979 (17).

In general, unadjusted county death rates for leukemia appear relatively unstable over time. That finding notwithstanding, the map below identifies several statistically significant clusters of 1979-81 unadjusted rates. The triad of first-degree rates in the western corner of the state would be expected to occur by chance only about 1 time in 333 (p=.003) while the total amount of clustering might be expected to occur 1 time in 69 (p = .0145). After adjustment for age, race, and sex, however, statistically significant clustering is not observed.

LEUKEMIA

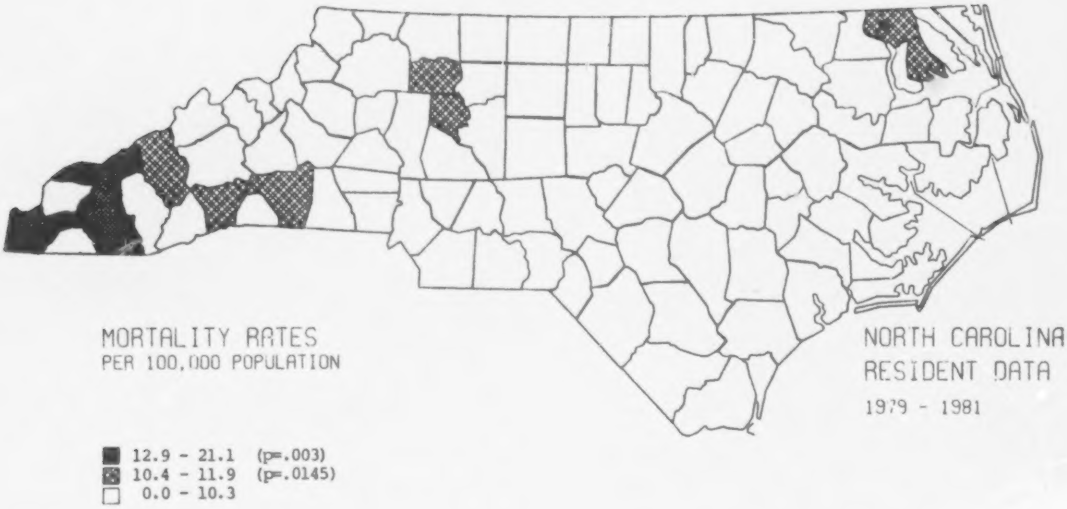

MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
■ 12.9 - 21.1 (p=.003)
▨ 10.4 - 11.9 (p=.0145)
☐ 0.0 - 10.3

TABLE 18

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

LEUKEMIA

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	394	6.61	1161	6.56	6.56
REGIONS					
DHR I WESTERN	148	7.24	432	7.14	6.61
DHR II N. CENTRAL	90	7.06	282	7.44	7.10
DHR III S. CENTRAL	75	5.44	214	5.24	5.98
DHR IV EASTERN	81	6.39	233	6.18	6.38
HSA I WESTERN	96	9.30	253	8.27	7.36
HSA II PIEDMONT	78	6.92	251	7.49	7.11
HSA III S. PIEDMONT	52	5.14	179	5.99	5.97
HSA IV CAPITAL	46	5.53	147	5.98	6.48
HSA V CARDINAL	59	6.47	139	5.15	5.69
HSA VI EASTERN	63	6.00	192	6.14	6.67
COUNTIES					
1 ALAMANCE	7	7.02	24	8.04	7.23
2 ALEXANDER	4	15.65	7	9.28	9.08
3 ALLEGHANY	2	20.56	3	10.36	5.83
4 ANSON	3	11.71	4	5.22	4.37
5 ASHE	2	8.79	5	7.47	5.51
6 AVERY	3	20.28	3	6.89	5.85
7 BEAUFORT	2	4.83	12	9.82	9.31
8 BERTIE	2	9.42	6	9.48	11.88
9 BLADEN	3	9.75	6	6.56	6.81
10 BRUNSWICK	1	2.68	5	4.60	4.32
11 BUNCOMBE	15	9.27	41	8.48	6.31
12 BURKE	4	5.45	14	6.44	8.24
13 CABARRUS	5	5.69	21	8.13	6.92
14 CALDWELL	6	8.80	11	5.43	4.93
15 CAMDEN	1	17.60	1	5.77	4.55
16 CARTERET	0	0.00	6	4.78	4.00
17 CASWELL	0	0.00	2	3.21	2.83
18 CATAWBA	8	7.49	29	9.18	9.57
19 CHATHAM	2	5.88	6	5.94	5.38
20 CHEROKEE	2	10.40	8	14.08	8.47
21 CHOWAN	3	23.73	3	7.92	9.37
22 CLAY	0	0.00	1	4.97	2.79
23 CLEVELAND	6	7.15	17	6.80	6.39
24 COLUMBUS	7	13.47	13	8.44	8.78
25 CRAVEN	5	6.96	15	7.00	7.97
26 CUMBERLAND	13	5.17	24	3.22	5.17
27 CURRITUCK	0	0.00	2	5.90	7.37
28 DARE	1	6.91	2	4.90	3.95
29 DAVIDSON	4	3.51	20	5.90	5.37
30 DAVIE	1	3.76	9	11.90	10.19
31 DUPLIN	4	9.79	9	7.34	6.80
32 DURHAM	8	5.16	26	5.66	5.67
33 EDGECOMBE	5	8.90	14	8.31	9.34
34 FORSYTH	14	5.67	50	6.82	6.85
35 FRANKLIN	1	3.27	4	4.42	4.74
36 GASTON	9	5.48	29	5.95	6.19
37 GATES	0	0.00	3	11.33	12.04
38 GRAHAM	0	0.00	0	0.00	0.00
39 GRANVILLE	4	11.57	7	6.83	6.66
40 GREENE	1	6.21	4	8.36	8.75
41 GUILFORD	27	8.49	74	7.78	7.68

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
LEUKEMIA CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	3	5.41	10	6.01	6.80
43 HARNETT	2	3.31	7	3.90	3.93
44 HAYWOOD	8	17.05	16	11.45	7.42
45 HENDERSON	9	14.85	20	11.32	10.33*
46 HERTFORD	2	8.50	6	8.53	8.43
47 HOKE	2	9.43	3	4.89	3.91
48 HYDE	0	0.00	1	5.59	4.29
49 IREDELL	3	3.56	19	7.63	6.43
50 JACKSON	1	3.77	3	3.87	2.95
51 JOHNSTON	5	6.95	20	9.39	9.19
52 JONES	0	0.00	3	10.34	10.40
53 LEE	2	5.39	10	9.10	8.76
54 LENOIR	6	9.99	13	7.25	7.11
55 LINCOLN	1	2.33	4	3.15	2.48
56 MCDOWELL	0	0.00	6	5.69	4.41
57 MACON	2	9.43	13	21.06	11.15
58 MADISON	0	0.00	2	3.93	3.03
59 MARTIN	4	15.17	4	5.11	4.16
60 MECKLENBURG	24	5.83	73	6.01	6.77
61 MITCHELL	0	0.00	3	6.91	4.18
62 MONTGOMERY	1	4.40	1	1.49	1.69
63 MOORE	2	3.89	11	7.26	5.96
64 NASH	5	7.31	15	7.39	7.71
65 NEW HANOVER	9	8.52	20	6.42	6.38
66 NORTHAMPTON	2	8.89	7	10.31	9.50
67 ONSLOW	2	1.76	8	2.35	4.94
68 ORANGE	2	2.58	6	2.59	3.63
69 PAMLICO	0	0.00	0	0.00	0.00
70 PASQUOTANK	1	3.51	7	8.22	8.27
71 PENDER	1	4.44	3	4.50	4.45
72 PERQUIMANS	2	20.79	3	10.47	10.30
73 PERSON	3	10.17	6	6.85	6.37
74 PITT	4	4.34	14	5.15	6.59
75 POLK	2	14.90	3	7.66	3.09
76 RANDOLPH	6	6.44	17	6.18	6.20
77 RICHMOND	5	10.90	13	9.53	9.05
78 ROBESON	6	5.83	17	5.56	6.97
79 ROCKINGHAM	7	8.27	21	8.37	7.38
80 ROWAN	4	3.99	15	5.04	3.90
81 RUTHERFORD	8	14.66	17	10.51	10.71
82 SAMPSON	2	4.01	10	6.72	6.42
83 SCOTLAND	2	6.14	2	2.06	1.98
84 STANLY	3	6.21	10	6.92	6.47
85 STOKES	5	14.68	10	10.03	8.82
86 SURRY	3	5.00	15	8.42	10.09
87 SWAIN	1	9.65	4	12.90	12.91
88 TRANSYLVANIA	1	4.18	3	4.25	2.73
89 TYRRELL	0	0.00	0	0.00	0.00
90 UNION	3	4.16	8	3.79	4.58
91 VANCE	3	8.15	11	9.99	9.90
92 WAKE	15	4.87	48	5.30	6.46
93 WARREN	1	6.15	3	6.13	7.00
94 WASHINGTON	0	0.00	1	2.25	2.66
95 WATAUGA	4	12.24	5	5.22	3.67
96 WAYNE	2	2.05	10	3.42	4.12
97 WILKES	7	11.82	17	9.61	9.40
98 WILSON	6	9.48	13	6.88	7.95
99 YADKIN	4	13.78	9	10.49	7.54
100 YANCEY	1	6.66	2	4.45	2.57

* SEE SECTION II

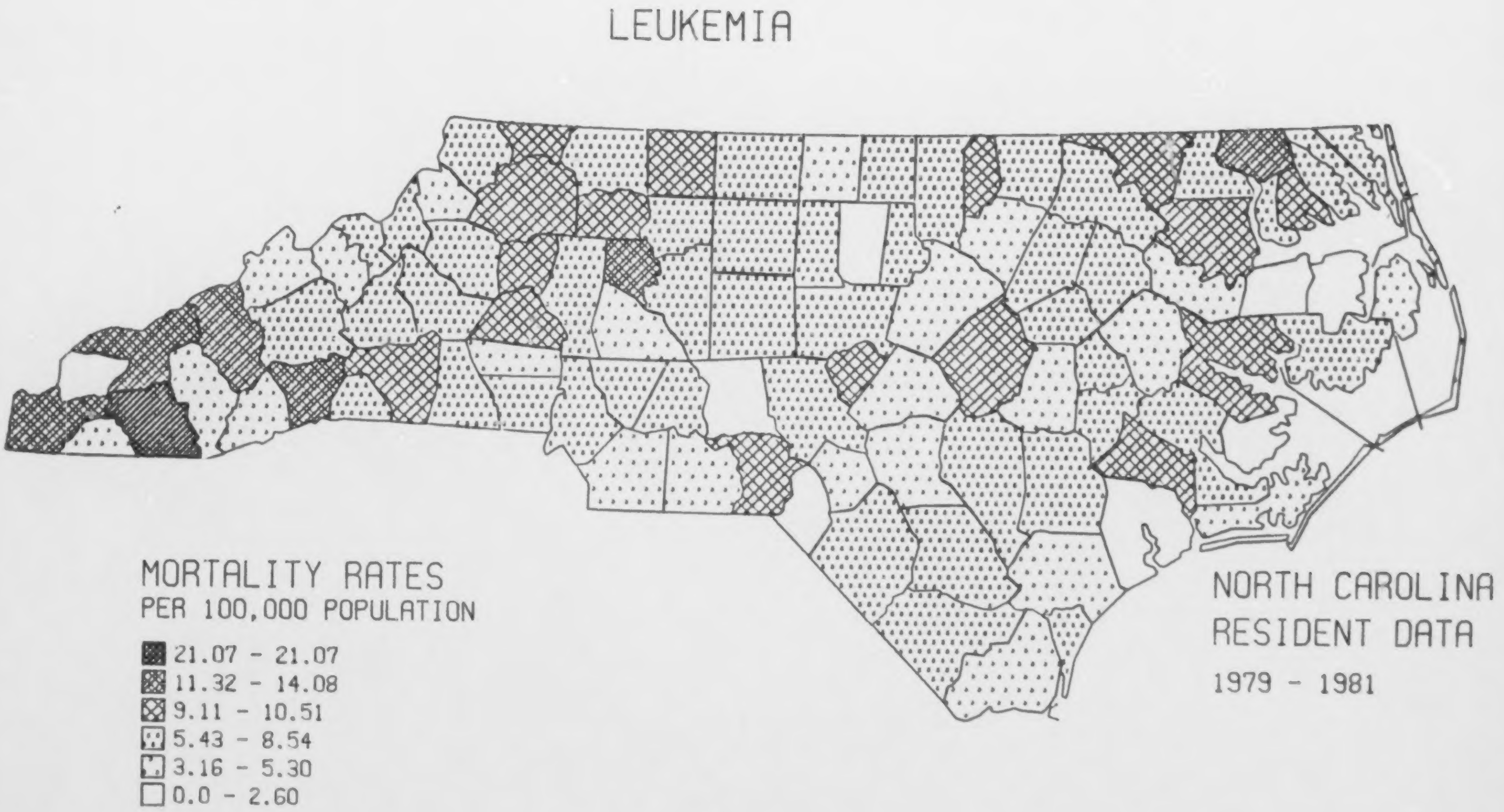

LEUKEMIA
MORTALITY RATES
PER 100,000 POPULATION
▩ 21.07 - 21.07
▩ 11.32 - 14.08
▩ 9.11 - 10.51
▩ 5.43 - 8.54
▩ 3.16 - 5.30
☐ 0.0 - 2.60
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 18.A

LEUKEMIA

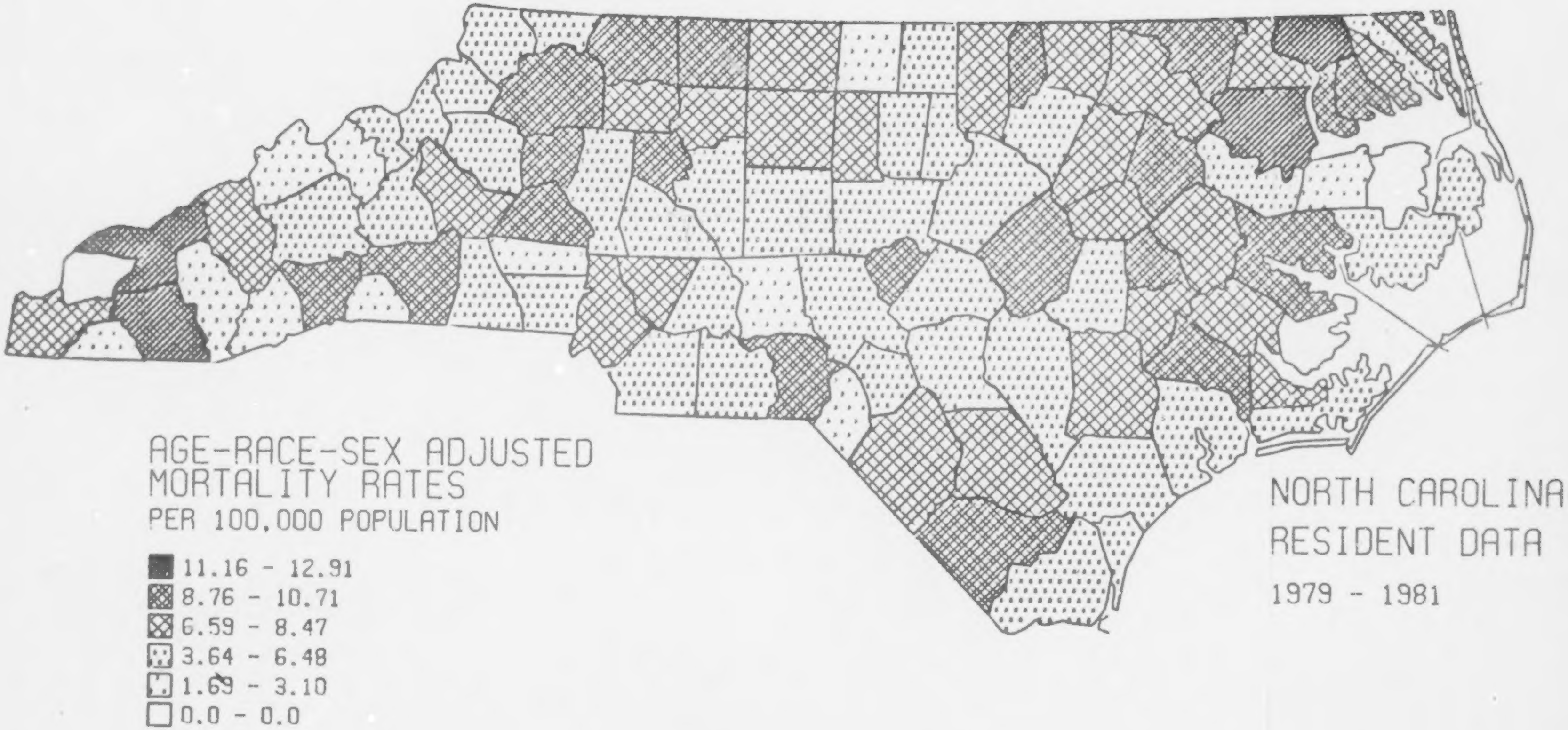

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
11.16 - 12.91
8.76 - 10.71
6.59 - 8.47
3.64 - 6.48
1.69 - 3.10
0.0 - 0.0
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 18.B

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VII. Other Selected Causes of Mortality

DIABETES MELLITUS

Continually ranked as one of the ten leading causes of death over the past 20 years, diabetes mellitus has long been considered a major public health problem. Although no known cure exists for diabetes, proper care and management of diabetes via careful balancing of diet, insulin levels, and exercise can check in varying degrees the acute and long-term complications of the disease (1).

In 1981, 798 North Carolinians were reported to have died from diabetes, making it the seventh leading cause of death in the state. This ranking is considered to be an underestimate of the impact of diabetes on mortality since it does not reflect the contribution of diabetes to other immediate causes of death. Like hypertension and atherosclerosis, diabetes is an associated condition far more often than it is the underlying cause of death. A comparison of diabetes as the underlying cause and diabetes as a mentioned condition will illustrate this point. As noted previously, diabetes was the underlying cause on 798 certificates, a rate of 13.4 deaths per 100,000 population. On the other hand, it was a mentioned condition on 3611 certificates, a rate of 60.6 per 100,000 population. Thus, looking at mentioned conditions instead of just underlying cause, diabetes has a 4.5 times greater impact on mortality. (For further information on mentioned conditions, see Section X--Multiple Conditions Present at Death).

As an underlying cause of death, North Carolina's death rate for diabetes has declined an average of 3.1 percent per year since 1976. During this period, the United States experienced an average decline of 1.1 percent per year to a provisional rate of 15.2 in 1981.

North Carolina's lower rate (13.4) reflects in part a comparatively young population. After adjusting for age, the U.S. and N.C. rates are about equal (9.9 and 10.0, respectively). Age-adjusted rates also reveal a decrease in N.C.'s mortality from diabetes between the 1974-78 and the 1979-81 periods.

Regardless of race or sex, deaths from diabetes mellitus are far more common among the elderly. In the 1979-81 period, almost 2 out of every 3 deaths from diabetes were to persons 65 years of age or older. By sex, women accounted for more diabetes deaths (57.5% of the total) than men (42.5%). However, age-specific rates show that men generally have a higher mortality up to age 45 for nonwhites and age 75 for whites. By race, nonwhites are at higher risk of death from diabetes than whites, with nonwhite females having the highest risk. The 1979-81 race-sex-specific age-adjusted rates (underlying cause) were 9.2 for white males, 7.2 for white females, 18.8 for nonwhite males, and 21.9 for nonwhite females. Each of these rates represents a decline since the 1974-78 period.

Risk Factors

Factors that are reported to increase the risk of diabetes have varied from one study to another. The difficulty posed in analyzing epidemiologic studies is the fact that there is no generally accepted definition of the disease nor is there agreement as to its basic lesion and pathogonesis. However, family history, high blood pressure, diet, and age are thought to be explanatory factors (2). In addition, the factors known to be associated with increased risk of atherosclerosis, hypertension, and cardiovascular mortality and morbidity appear to be possible risk factors for diabetes since these diseases are generally mentioned on death certificates along with diabetes.

In fact, of the 3611 death certificates with mention of diabetes in 1981, 74% also mentioned heart disease, 49% mentioned atherosclerosis, 24% mentioned cerebrovascular disease, and 22% mentioned hypertension. Data from the Fall 1982 N.C. Citizen Survey revealed that elderly, poor, and less educated persons are more likely to have been told by a doctor that they have diabetes (3).

Geographic Patterns

No attempt is made here to assess county-by-county geographic variations in the underlying diabetes death rate since diabetes mellitus is much more likely to be a mentioned rather than underlying condition. In the section of this volume on "Multiple Conditions Present at Death," there are county maps showing 1979-81 diabetes mentions per 100,000 population, with an associated analysis. Data from that section and from Table 19 suggest that residents of the eastern region of the state appear to be at high risk for diabetes, even after the effects of age, race, and sex have been controlled.

TABLE 19

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

DIABETES MELLITUS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	798	13.38	2463	13.93	13.93
REGIONS					
DHR I WESTERN	256	12.52	798	13.20	13.85
DHR II N. CENTRAL	170	13.34	534	14.10	13.67
DHR III S. CENTRAL	183	13.28	543	13.31	14.24
DHR IV EASTERN	189	14.92	588	15.61	14.54
HSA I WESTERN	127	12.30	408	13.34	13.94
HSA II PIEDMONT	139	12.34	453	13.53	13.71
HSA III S. PIEDMONT	129	12.75	390	13.05	13.92
HSA IV CAPITAL	117	14.08	337	13.71	13.94
HSA V CARDINAL	118	12.94	375	13.89	14.01
HSA VI EASTERN	168	16.01	500	16.00	14.99
COUNTIES					
1 ALAMANCE	16	16.05	46	15.42	13.68
2 ALEXANDER	0	0.00	5	6.63	6.12
3 ALLEGHANY	0	0.00	1	3.45	2.03
4 ANSON	2	7.81	11	14.35	12.37
5 ASHE	3	13.19	15	22.41	13.65
6 AVERY	0	0.00	2	4.59	3.29
7 BEAUFORT	18	43.49	39	31.92	26.65
8 BERTIE	4	18.84	19	30.03	17.48
9 BLADEN	4	13.00	12	13.12	8.36
10 BRUNSWICK	1	2.68	8	7.36	7.23
11 BUNCOMBE	23	14.21	64	13.25	11.61
12 BURKE	7	9.55	27	12.42	16.76
13 CABARRUS	7	7.96	22	8.51	8.27
14 CALDWELL	19	27.87	50	24.68	26.37
15 CAMDEN	1	17.60	3	17.32	14.40
16 CARTERET	6	13.98	17	13.57	13.28
17 CASWELL	6	28.55	12	19.30	19.89
18 CATAWBA	11	10.30	39	12.35	16.91
19 CHATHAM	4	11.76	10	9.90	8.79
20 CHEROKEE	4	20.81	9	15.84	14.41
21 CHOWAN	3	23.73	7	18.49	11.36
22 CLAY	1	14.37	4	19.88	11.55
23 CLEVELAND	18	21.47	42	16.81	17.30
24 COLUMBUS	10	19.24	32	20.78	19.53
25 CRAVEN	6	8.35	19	8.87	9.98
26 CUMBERLAND	15	5.97	48	6.45	12.31
27 CURRITUCK	1	8.84	6	17.70	15.61
28 DARE	3	20.74	6	14.70	16.30
29 DAVIDSON	19	16.71	43	12.70	14.66
30 DAVIE	2	7.53	9	11.90	11.31
31 DUPLIN	14	34.26	34	27.76	22.37
32 DURHAM	23	14.85	69	15.02	13.77
33 EDGECOMBE	14	24.94	29	17.21	14.58
34 FORSYTH	20	8.10	103	14.04	13.56
35 FRANKLIN	7	22.92	17	18.81	15.31
36 GASTON	18	10.96	80	16.42	17.10
37 GATES	0	0.00	2	7.55	2.66
38 GRAHAM	1	14.18	2	9.35	44.67
39 GRANVILLE	5	14.47	19	18.55	16.55
40 GREENE	0	0.00	3	6.27	5.18
41 GUILFORD	33	10.38	117	12.30	12.36

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
DIABETES MELLITUS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	12	21,64	45	27,06	19.70
43 HARNETT	13	21,53	33	18,28	19.22
44 HAYWOOD	3	6,39	20	14,31	8.93
45 HENDERSON	7	11,55	27	15,28	8.30
46 HERTFORD	5	21,26	15	21,34	16.44
47 HOKE	5	23,58	11	17,94	13.74
48 HYDE	1	16,66	5	27,95	15.51
49 IREDELL	13	15,44	41	16,48	15.21
50 JACKSON	1	3,77	8	10,32	9.88
51 JOHNSTON	8	11,13	38	17,85	17.17
52 JONES	0	0,00	6	20,68	12.15
53 LEE	8	21,56	22	20,03	20.28
54 LENOIR	13	21,66	33	18,41	16.10
55 LINCOLN	4	9,32	14	11,05	18.53
56 MCDOWELL	3	8,36	11	10,44	16.77
57 MACON	0	0,00	5	8,10	4.75
58 MADISON	1	5,70	6	11,79	7.61
59 MARTIN	6	22,76	14	17,89	12.12
60 MECKLENBURG	47	11,41	119	9,81	10.99
61 MITCHELL	2	13,77	4	9,22	5.63
62 MONTGOMERY	3	13,21	13	19,41	17.24
63 MOORE	8	15,59	22	14,52	12.24
64 NASH	5	7,31	21	10,35	9.53
65 NEW HANOVER	8	7,57	41	13,17	12.51
66 NORTHAMPTON	4	17,78	13	19,15	12.43
67 ONSLOW	3	2,64	17	5,00	12.19
68 ORANGE	11	14,20	20	8,66	10.78
69 PAMLICO	0	0,00	2	6,46	5.42
70 PASQUOTANK	3	10,55	9	10,57	8.54
71 PENDER	2	8,88	7	10,51	6.25
72 PERQUIMANS	1	10,39	3	10,47	5.17
73 PERSON	4	13,56	11	12,56	10.15
74 PITT	13	14,11	36	13,26	14.18
75 POLK	1	7,45	5	12,77	10.87
76 RANDOLPH	9	9,67	31	11,27	15.91
77 RICHMOND	7	15,26	20	14,67	12.93
78 ROBESON	23	22,35	62	20,29	21.53
79 ROCKINGHAM	16	18,90	43	17,14	16.20
80 ROWAN	24	23,94	70	23,52	22.48
81 RUTHERFORD	4	7,33	16	9,89	8.32
82 SAMPSON	11	22,05	29	19,50	14.35
83 SCOTLAND	6	18,42	26	26,78	27.38
84 STANLY	11	22,80	24	16,61	17.16
85 STOKES	6	17,61	10	10,03	8.72
86 SURRY	7	11,68	21	11,79	14.87
87 SWAIN	2	19,30	7	22,59	23.37
88 TRANSYLVANIA	2	8,37	7	9,91	7.31
89 TYRRELL	1	24,19	3	24,75	25.27*
90 UNION	5	6,93	20	9,47	11.55
91 VANCE	10	27,17	22	19,99	17.20
92 WAKE	32	10,39	97	10,71	13.82
93 WARREN	5	30,75	12	24,52	18.55
94 WASHINGTON	4	27,22	9	20,26	21.45
95 WATAUGA	4	12,24	11	11,49	9.54
96 WAYNE	12	12,31	40	13,70	14.44
97 WILKES	8	13,51	17	9,61	11.86
98 WILSON	15	23,70	45	23,82	22.53
99 YADKIN	5	17,22	18	20,99	18.94
100 YANCEY	2	13,32	4	8,90	46.87*

* SEE SECTION II

INFLUENZA AND PNEUMONIA

Since mortality from influenza and pneumonia is greatly affected by epidemics, death rates for both the United States and North Carolina tend to fluctuate. From 1970 to 1978 the North Carolina trend was generally downward as the combined rate dropped about 35 percent from 32.5 to 24.9 deaths per 100,000 population. Users must be cautious about analyzing long-term trends because of changes in the coding of death certificates. Given in the 1979 Leading Causes of Mortality, comparability ratios allow for comparisons between deaths occurring before 1979 and deaths occurring in 1979 and afterwards. Applying the ratio for pneumonia and influenza (0.93) to the 1978 unadjusted rate, the resulting death rate (23.2) is slightly lower than the 1981 rate of 23.8, indicating a recent stabilization in the incidence of pneumonia and influenza mortality. The 1974-78 and 1979-81 unadjusted rates, however, showed a slight decline in mortality.

While unadjusted rates are important in assessing the level of health care needed, the actual "forces of mortality" are best described by rates that are adjusted for age, race, and/or sex differences that cause one population's level of mortality to differ from another's. Comparing age-adjusted rates for the 1974-78 and 1979-81 periods, influenza and pneumonia mortality actually declined by 17 percent from 16.3 to 13.5. The implication of this decline in mortality risk suggests that the increasingly older age structure has curtailed the decline in unadjusted rates. As noted in Section III, North Carolina has a rapidly aging population.

Influenza and pneumonia decedents are likely to be elderly, i.e., age 65 and over (79%), regardless of race and/or sex. However, the percent of deaths to elderly persons has remained about the same from 1979 to 1981 for each race-sex group with the exception of nonwhite females among whom it increased from 49% to 74%.

Nonwhite males continued to have the highest rate in 1981 (32.7) and nonwhite females the lowest (13.9). The race gaps, expressed as the ratios of nonwhite to white rates, were 1.3 for males and 0.6 for females. However, when the race-sex-specific rates were adjusted for differences in age composition, the gaps changed. Nonwhite males had a rate at least twice as high as any other race-sex group, with nonwhite and white females being about equal. Also, males were 2 to 3 times more likely to die from pneumonia and influenza than females based on the adjusted rates, with the sex ratios being 2.0 for whites and 3.6 for nonwhites.

While influenza and pneumonia were listed on 1418 death certificates in 1981 as the underlying cause of death, they were mentioned on 4018 certificates. Of these, influenza or pneumonia was more often the underlying cause (35%) than was any other single cause. Other underlying causes of deaths on these certificates (with percent) were heart disease (18%), cancer (13%), cerebrovascular disease (10%), and hypertension (6%).

Risk Factors

Persons most at risk of dying from influenza or pneumonia are those over age 50, those with chronic diseases of the heart, liver, lungs or kidneys, and those with diabetes (4). Infants are also at increased risk of pneumonia.

Geographic Patterns

Figure 20.A shows that mortality from these conditions was generally higher in the northeastern and western parts of the state. Of the four DHR regions, the western region had the highest rate (23.2) followed by the eastern region (22.7). However, adjustment for age, race, and sex tends to lower the relative mortality levels of many counties, especially in the west (Figure 20.8). As shown in both figures, Anson, Beaufort, Carteret, Currituck, Granville, Halifax, Hyde, Pasquotank, Stokes, Swain, and Warren counties have level-four or higher unadjusted and adjusted rates. No statistically significant spatial clusters were found for pneumonia and influenza using procedures outlined in Section II.

TABLE 20

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

PNEUMONIA AND INFLUENZA

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	1418	23.78	3730	21.10	21.10
REGIONS					
DHR I WESTERN	542	26.52	1405	23.25	22.11
DHR II N. CENTRAL	271	21.27	783	20.67	19.77
DHR III S. CENTRAL	274	19.89	687	16.84	19.57
DHR IV EASTERN	331	26.14	855	22.71	23.47
HSA I WESTERN	297	28.78	778	25.45	21.90
HSA II PIEDMONT	232	20.59	642	19.18	18.69
HSA III S. PIEDMONT	245	24.22	627	20.99	22.06
HSA IV CAPITAL	188	22.63	501	20.38	21.74
HSA V CARDINAL	182	19.96	454	16.82	19.18
HSA VI EASTERN	274	26.12	728	23.30	24.28
COUNTIES					
1 ALAMANCE	20	20.06	56	18.77	17.20
2 ALEXANDER	5	19.57	12	15.91	14.25
3 ALLEGHANY	4	41.13	12	41.44	23.32
4 ANSON	16	62.49	35	45.68	38.60
5 ASHE	5	21.99	13	19.42	11.45
6 AVERY	5	33.81	12	27.56	22.36
7 BEAUFORT	11	26.57	45	36.83	31.51
8 BERTIE	5	23.56	19	30.03	21.49
9 BLADEN	9	29.26	25	27.33	31.05
10 BRUNSWICK	5	13.43	14	12.89	13.46
11 BUNCOMBE	62	38.33	166	34.37	26.49
12 BURKE	15	17.74	56	25.76	30.11
13 CABARRUS	31	35.28	69	26.72	28.75
14 CALDWELL	17	24.94	33	16.29	18.47
15 CAMDEN	2	35.21	3	17.32	18.42
16 CARTERET	13	30.30	41	32.73	30.02
17 CASWELL	4	19.03	5	8.04	8.18
18 CATAWBA	10	9.36	35	11.09	12.45
19 CHATHAM	9	26.46	18	17.83	15.63
20 CHEROKEE	6	31.22	12	21.12	9.60
21 CHOWAN	6	47.47	13	34.34	23.39
22 CLAY	3	43.12	5	24.85	12.69
23 CLEVELAND	22	26.24	57	22.81	22.06
24 COLUMBUS	18	34.64	36	23.37	24.36
25 CRAVEN	15	20.88	27	12.61	17.67
26 CUMBERLAND	27	10.75	77	10.35	22.10
27 CURRITUCK	9	79.57	15	44.26	46.70
28 DARE	5	34.57	9	22.05	25.52
29 DAVIDSON	25	21.99	56	16.54	16.30
30 DAVIE	2	7.53	15	19.84	23.23
31 DUPLIN	5	12.23	12	9.79	9.57
32 DURHAM	43	27.78	102	22.20	20.65
33 EDGECOMBE	11	19.59	38	22.56	21.57
34 FORSYTH	45	18.22	139	18.96	18.27
35 FRANKLIN	6	19.64	21	23.23	19.60
36 GASTON	34	20.70	97	19.92	22.70
37 GATES	5	55.74	8	30.23	13.67
38 GRAHAM	3	42.54	4	18.70	10.42
39 GRANVILLE	12	34.72	50	48.82	50.33
40 GREENE	3	18.65	5	10.45	12.08
41 GUILFORD	67	21.07	177	18.61	18.18

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
PNEUMONIA AND INFLUENZA CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	16	28.86	58	34.88	30.82
43 HARNETT	9	14.91	25	13.92	14.78
44 HAYWOOD	18	38.36	43	30.77	20.37
45 HENDERSON	18	29.70	54	30.56	15.97
46 HERTFORD	6	25.51	15	21.34	14.71
47 HOKE	3	14.14	8	13.05	16.94
48 HYDE	4	66.66	7	39.13	29.57
49 IREDELL	18	21.38	66	26.53	24.51
50 JACKSON	9	34.01	21	27.09	25.87
51 JOHNSTON	13	18.09	35	16.44	16.53
52 JONES	1	10.30	8	27.57	31.15
53 LEE	8	21.56	20	18.21	18.75
54 LENOIR	19	31.66	50	27.89	26.88
55 LINCOLN	5	11.65	19	15.00	19.35
56 MCDOWELL	12	33.45	30	28.48	23.25
57 MACON	10	47.16	23	37.27	19.90
58 MADISON	5	28.53	19	37.35	20.95
59 MARTIN	4	15.17	17	21.72	23.84
60 MECKLENBURG	86	20.89	218	17.97	20.87
61 MITCHELL	8	55.11	20	46.11	25.29
62 MONTGOMERY	8	35.23	21	31.36	24.97
63 MOORE	9	17.54	29	19.15	15.85
64 NASH	20	29.24	52	25.64	25.00
65 NEW HANOVER	29	27.46	66	21.20	22.07
66 NORTHAMPTON	8	35.56	22	32.41	20.85
67 ONSLOW	13	11.45	32	9.41	23.52
68 ORANGE	18	23.24	46	19.92	25.52
69 PAMLICO	3	28.75	8	25.84	21.98
70 PASQUOTANK	14	49.24	35	41.11	37.00
71 PENDER	5	22.21	11	16.52	14.66
72 PERQUIMANS	2	20.79	7	24.43	17.44
73 PERSON	6	20.35	12	13.70	13.31
74 PITT	31	33.64	69	25.42	31.22
75 POLK	6	44.72	18	45.99	24.83
76 RANDOLPH	9	9.67	38	13.82	15.89
77 RICHMOND	10	21.80	17	12.47	11.91
78 ROBESON	17	16.52	50	16.36	18.20
79 ROCKINGHAM	21	24.81	54	21.52	20.28
80 ROWAN	47	46.89	97	32.60	24.94
81 RUTHERFORD	16	29.33	39	24.12	18.89
82 SAMPSON	11	22.05	21	14.12	13.61
83 SCOTLAND	6	18.42	19	19.57	23.80
84 STANLY	10	20.73	28	19.37	17.84
85 STOKES	11	32.30	35	35.12	38.59
86 SURRY	20	33.39	53	29.77	20.11
87 SWAIN	11	106.17	15	48.41	31.93
88 TRANSYLVANIA	8	33.51	11	15.58	10.14
89 TYRRELL	0	0.00	2	16.50	12.07
90 UNION	14	19.42	33	15.63	18.72
91 VANCE	11	29.88	33	29.98	26.01
92 WAKE	58	18.84	139	15.36	20.73
93 WARREN	4	24.60	25	51.10	36.92
94 WASHINGTON	1	6.80	8	18.01	19.27
95 WATAUGA	4	12.24	22	22.99	18.80
96 WAYNE	23	23.60	55	18.84	21.97
97 WILKES	13	21.96	32	18.09	18.37
98 WILSON	19	30.02	48	25.41	27.41
99 YADKIN	8	27.56	14	16.32	13.75
100 YANCEY	4	26.64	14	31.17	17.46

* SEE SECTION II

PNEUMONIA AND INFLUENZA

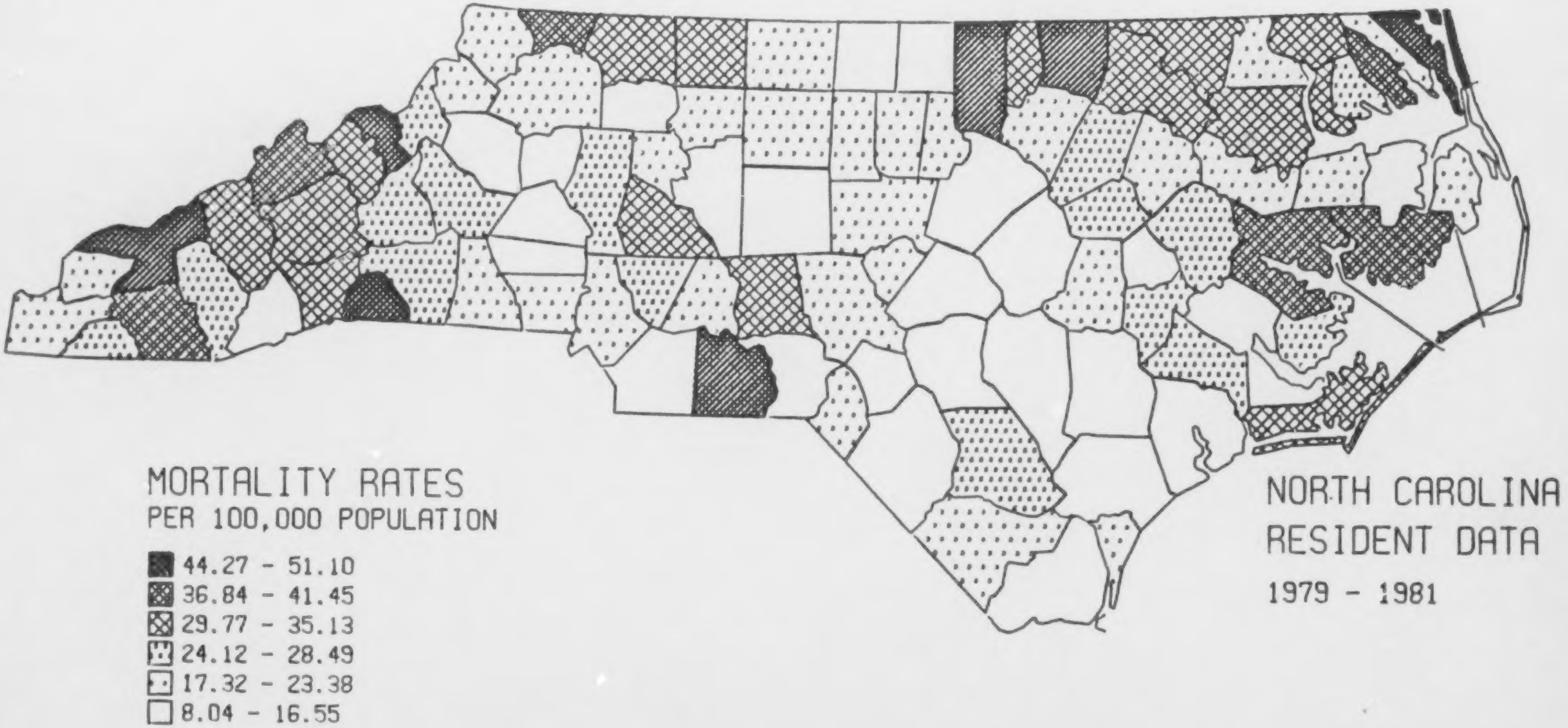

NORTH CAROLINA
RESIDENT DATA
1979 - 1981
MORTALITY RATES
PER 100,000 POPULATION
■ 44.27 - 51.10
▩ 36.84 - 41.45
▨ 29.77 - 35.13
⁘ 24.12 - 28.49
⁚ 17.32 - 23.38
□ 8.04 - 16.55

FIGURE 20.A

PNEUMONIA AND INFLUENZA

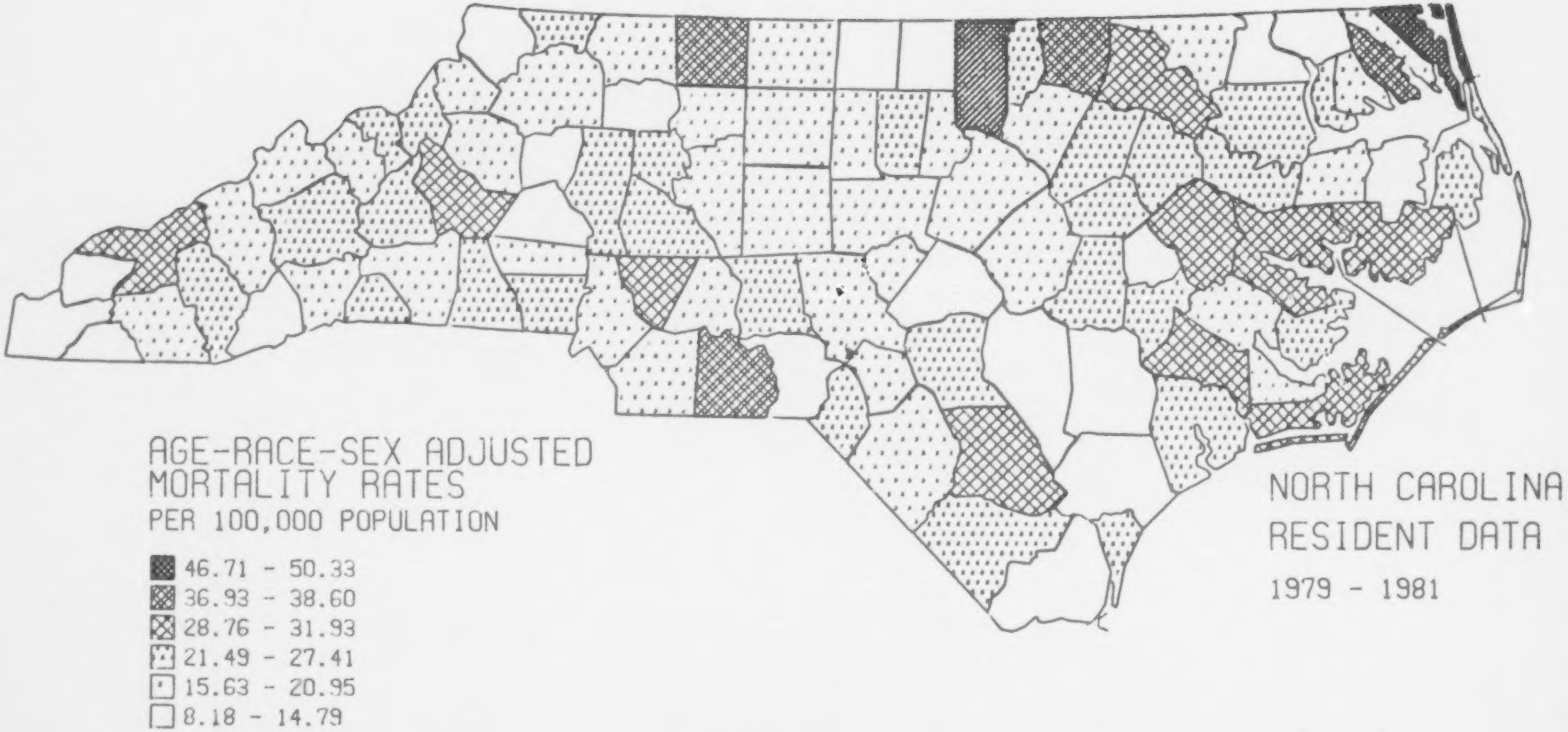

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 46.71 - 50.33
▩ 36.93 - 38.60
▨ 28.76 - 31.93
⁘ 21.49 - 27.41
⊡ 15.63 - 20.95
☐ 8.18 - 14.79
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 20.B

CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND ALLIED CONDITIONS

The term "chronic obstructive pulmonary disease" is a generalized term which includes primarily bronchitis, emphysema, asthma, and unspecified "chronic obstructive lung disease." This latter term came into existence in the late 60's and early 70's and was assigned a disease classification code by the National Center for Health Statistics in the early part of 1971. Prior to that time, emphysema, bronchitis, asthma, and occasionally the term "lung disease" were the only entries used by certifying physicians to cover the chronic pulmonary diseases. In 1972, the first full year of the term's use, it was entered as the underlying cause on 21 percent of the chronic pulmonary disease death certificates instead of the more specific diagnoses of emphysema, bronchitis, or asthma. In 1981 this percentage increased to 65 percent, indicating that the use of the term has tripled in the past 10 years.

Chronic obstructive pulmonary disease was the sixth leading cause of death in 1980 and 1981, moving from fifth place in 1979. A total of 1,299 persons died of these conditions in 1981, a rate of 21.8 deaths per 100,000 population. The comparable provisional United States rate (26.1) was above the North Carolina rate and remained so after adjusting for age (5).

The death rate for chronic obstructive pulmonary disease increased 21 percent from a 1976 rate of 18.0 to a 1981 rate of 21.8. While each race and/or sex group experienced an increase, much of the overall increase could be attributed to nonwhites and females. The nonwhite rate increased by 36 percent compared to 19 percent for whites, and the female rate rose 59 percent compared to only 11 percent for males. Among the female populations, whites experienced a 63 percent increase while nonwhites showed an increase of 50 percent.

While the overall and race-sex-specific levels of mortality have increased, a different pattern emerges when examining adjusted rates. Using adjusted rates for the 1974-78 and 1979-81 periods (periods in which rates were readily available) and correcting the 1974-78 rates for changes in population bases and the ICD, the overall mortality rate remained relatively constant (0.8 percent increase). But there were significant increases for white females (up 17 percent), nonwhite males (up 20 percent), and nonwhite females (up 29 percent). White males, who experienced a 7 percent decline, offset the rise for the other race-sex groups because they comprised over 63 percent of all deaths from chronic obstructive pulmonary disease in both periods.

Death from chronic obstructive pulmonary disease occurs primarily among the elderly. Over 73 percent of these deaths were to persons 65 years of age or older. The 1979-81 rate increased with increasing age for each race-sex group except nonwhite females where it peaked at the 75-84 age group.

Risk Factors

The greatest risk factor for death from one of the chronic obstructive pulmonary diseases is cigarette smoking, with heavy smoking being the usual history in emphysema, except in the "bullous" or "traction" forms. Occupational exposure to various dusts and air pollution have also been implicated as risk factors. Lung diseases are irreversible, but because symptoms are due largely to airway obstruction, it is possible to increase the functioning capacity of the lungs by treatment. (6)

Geographic Patterns

Figures 21.A and 21.B depict the county unadjusted and age-race-sex-adjusted rates for chronic obstructive pulmonary diseases (COPD). As shown in Figure 21.A, many of the 100 North Carolina counties have a relatively low mortality rate (Levels 3 and below), with a 10-county area of high rates in the west and a 7-county area of high rates in the northcentral region. Adjusting for age, race, and sex (Figure 21.B), the mortality pattern changes. A 16-county contiguous area is formed extending from Vance and Warren counties southward to Pender and Bladen counties.

Procedures described in Section II were used to test whether the clusters of high unadjusted and adjusted COPD rates are statistically significant. The map below shows that the cluster of high unadjusted rates in counties around Buncombe is statistically significant. However, tnis cluster is due to age-race-sex factors since no significant spatial clusters were found when testing the adjusted rates.

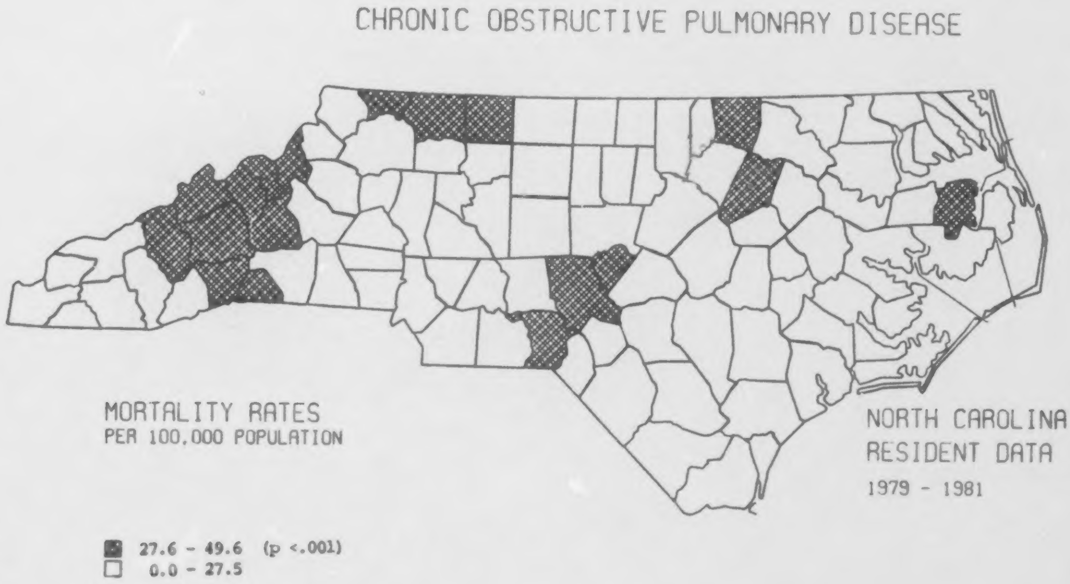

CHRONIC OBSTRUCTIVE PULMONARY DISEASE
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▩ 27.6 - 49.6 (p <.001)
☐ 0.0 - 27.5

TABLE 21

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CHRONIC OBSTRUCTIVE PULMONARY DISEASES

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	1299	21.79	3608	20.41	20.41
REGIONS					
DHR I WESTERN	464	22.70	1288	21,31	19.06
DHR II N. CENTRAL	282	22.13	843	22,26	21.31
DHR III S. CENTRAL	280	20.33	746	18,29	22.51
DHR IV EASTERN	273	21.54	731	19.41	21.44
HSA I WESTERN	261	25.29	729	23,85	19.67
HSA II PIEDMONT	246	21.84	736	21,98	21.23
HSA III S. PIEDMONT	203	20.07	559	18,71	18.80
HSA IV CAPITAL	182	21.91	493	20,05	22.84
HSA V CARDINAL	183	20.07	481	17,82	21.15
HSA VI EASTERN	224	21.35	610	19,52	21.99
COUNTIES					
1 ALAMANCE	20	20.06	59	19,78	17.51
2 ALEXANDER	5	19.57	14	18,56	26.32
3 ALLEGHANY	2	20.56	8	27,63	16.04
4 ANSON	3	11.71	17	22,19	21.88
5 ASHE	5	21.99	16	23,90	14.00
6 AVERY	5	35.81	18	41,34	29.05
7 BEAUFORT	3	7.24	22	18,00	16.31
8 BERTIE	6	28.27	7	11,06	8.00
9 BLADEN	5	16.26	24	26,24	24.49
10 BRUNSWICK	4	10.74	20	18,41	16.61
11 BUNCOMBE	52	32.14	137	28,36	22.16
12 BURKE	12	16.37	32	14,72	14.86
13 CABARRUS	23	26.18	59	22,84	20.36
14 CALDWELL	16	23.47	43	21,22	23.10
15 CAMDEN	1	17.60	4	23,09	20.37
16 CARTERET	14	32.63	28	22,35	19.49
17 CASWELL	4	19.03	14	22.52	21.80
18 CATAWBA	20	18.73	49	15.52	15.43
19 CHATHAM	8	23.52	21	20,80	18.05
20 CHEROKEE	2	10.40	15	26.40	15.24
21 CHOWAN	3	23.73	8	21,13	18.52
22 CLAY	1	14.37	2	9,94	3.07
23 CLEVELAND	10	11.92	44	17,61	16.52
24 COLUMBUS	6	11.54	22	14,28	14.30
25 CRAVEN	21	29.23	40	18,69	25.16
26 CUMBERLAND	22	8.76	68	9,14	19.28
27 CURRITUCK	0	0.00	7	20,65	17.69
28 DARE	0	0.00	3	7,35	6.20
29 DAVIDSON	15	13.19	62	18,31	18.96
30 DAVIE	8	30.15	17	22,48	21.46
31 DUPLIN	7	17.13	30	24,49	22.88
32 DURHAM	32	20.67	99	21,55	23.73
33 EDGECOMBE	12	21.38	36	21,37	26.39
34 FORSYTH	60	24.30	168	22,91	23.36
35 FRANKLIN	6	19.64	23	25,44	24.55
36 GASTON	32	19.48	79	16,22	15.78
37 GATES	1	11.14	4	15,11	10.62
38 GRAHAM	0	0.00	4	18,70	11.63
39 GRANVILLE	8	23.15	26	25,38	20.57
40 GREENE	3	18.65	7	14,63	16.97
41 GUILFORD	58	18.24	188	19.77	20.10

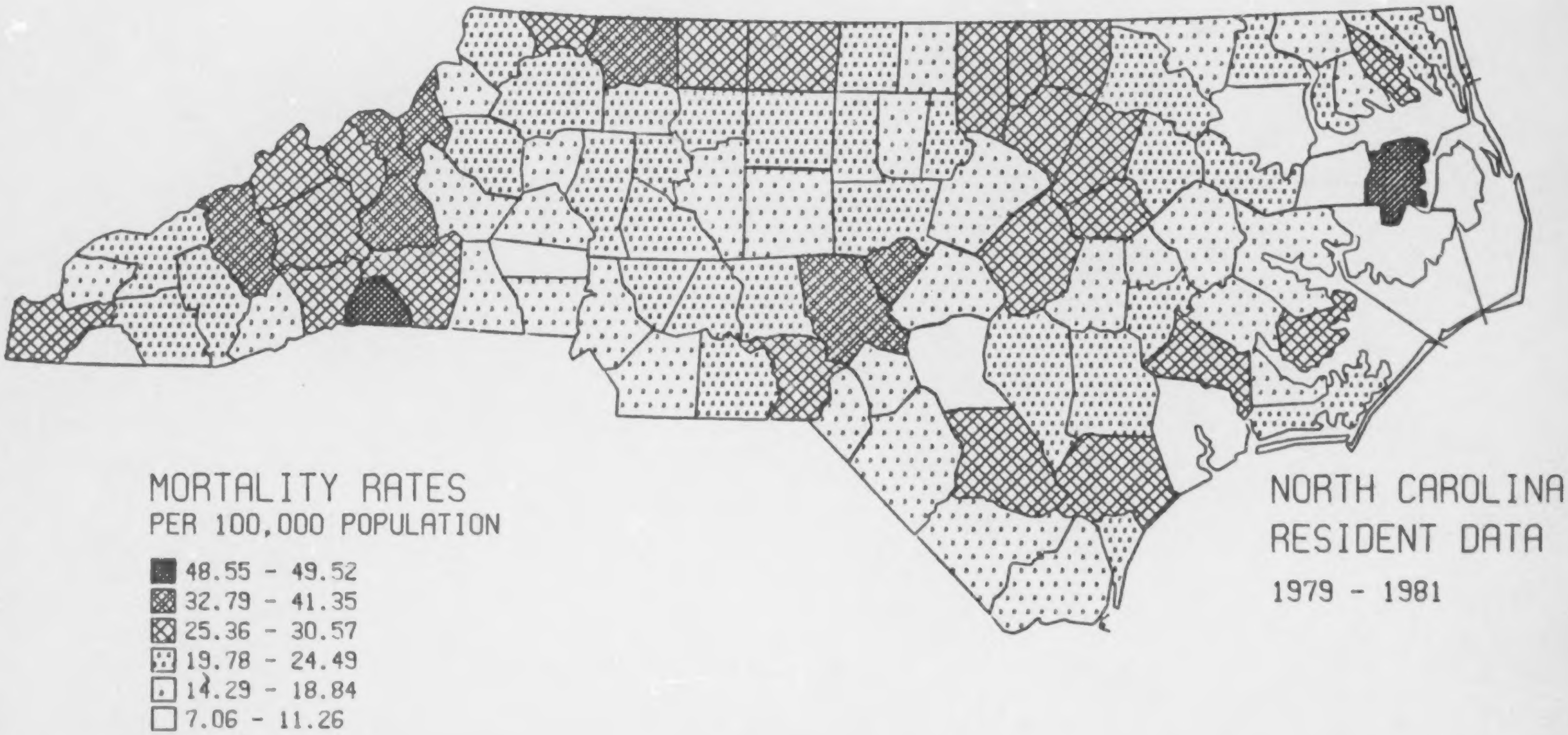
* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CHRONIC OBSTRUCTIVE PULMONARY DISEASES CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	12	21.64	38	22.85	21.96
43 HARNETT	11	18.22	31	17.27	18.45
44 HAYWOOD	15	31.97	50	35.78	41.49
45 HENDERSON	23	37.95	54	30.56	17.57
46 HERTFORD	3	12.75	15	21.34	29.47
47 HOKE	6	28.29	11	17.94	27.66
48 HYDE	0	0.00	2	11.18	6.72
49 IREDELL	26	30.89	57	22.91	20.48
50 JACKSON	10	37.79	17	21.93	17.92
51 JOHNSTON	20	27.83	54	25.36	24.85
52 JONES	5	51.50	8	27.57	31.10
53 LEE	10	26.96	36	32.79	33.80
54 LENOIR	16	26.66	39	21.76	24.14
55 LINCOLN	1	2.33	13	10.26	8.69
56 MCDOWELL	9	25.09	35	33.23	24.50
57 MACON	5	23.58	14	22.68	9.92
58 MADISON	5	28.53	15	29.48	16.08
59 MARTIN	8	30.35	17	21.72	20.90
60 MECKLENBURG	71	17.24	217	17.89	21.51
61 MITCHELL	5	34.44	15	34.58	21.00
62 MONTGOMERY	6	26.42	16	23.89	20.54
63 MOORE	23	44.84	57	37.63	28.49
64 NASH	25	36.55	60	29.59	30.65
65 NEW HANOVER	31	29.35	62	19.92	21.07
66 NORTHAMPTON	4	17.78	12	17.68	20.44
67 ONSLOW	11	9.69	24	7.06	17.67
68 ORANGE	13	16.78	34	14.72	19.45
69 PAMLICO	2	19.16	8	25.84	20.42
70 PASQUOTANK	8	28.14	23	27.02	28.59
71 PENDER	8	35.53	17	25.54	25.99
72 PERQUIMANS	3	31.19	5	17.45	10.52
73 PERSON	5	16.95	15	17.13	16.18
74 PITT	16	17.36	47	17.31	23.32
75 POLK	4	29.81	19	48.55	28.84
76 RANDOLPH	18	19.34	47	17.09	15.31
77 RICHMOND	16	34.89	41	30.08	28.76
78 ROBESON	22	21.38	47	15.38	21.21
79 ROCKINGHAM	20	23.63	64	25.51	22.83
80 ROWAN	28	27.93	65	21.84	17.19
81 RUTHERFORD	18	33.00	41	25.35	19.42
82 SAMPSON	17	34.09	34	22.86	21.40
83 SCOTLAND	3	9.21	14	14.42	18.50
84 STANLY	12	24.87	35	24.22	19.40
85 STOKES	12	35.23	28	28.10	26.57
86 SURRY	24	40.07	69	38.75	31.15
87 SWAIN	3	28.95	7	22.59	16.81
88 TRANSYLVANIA	[illegible]	8.37	13	18.41	15.50
89 TYRRELL	2	48.39	6	49.51	36.89
90 UNION	10	13.87	34	16.11	16.85
91 VANCE	10	27.17	29	26.35	25.20
92 WAKE	63	20.47	142	15.69	21.77
93 WARREN	7	43.06	14	28.61	23.94
94 WASHINGTON	1	6.80	5	11.25	12.08
95 WATAUGA	6	18.36	18	18.81	42.43
96 WAYNE	22	22.57	55	18.84	25.38
97 WILKES	18	30.40	36	20.35	22.45
98 WILSON	15	23.70	50	26.47	30.04
99 YADKIN	7	24.12	20	23.32	20.45
100 YANCEY	8	53.29	13	28.95	16.91

* SEE SECTION II

CHRONIC OBSTRUCTIVE PULMONARY DISEASES


MORTALITY RATES
PER 100,000 POPULATION
■ 48.55 - 49.52
▩ 32.79 - 41.35
▨ 25.36 - 30.57
⁙ 19.78 - 24.49
⊡ 14.29 - 18.84
☐ 7.06 - 11.26

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 21.A

CHRONIC OBSTRUCTIVE PULMONARY DISEASES

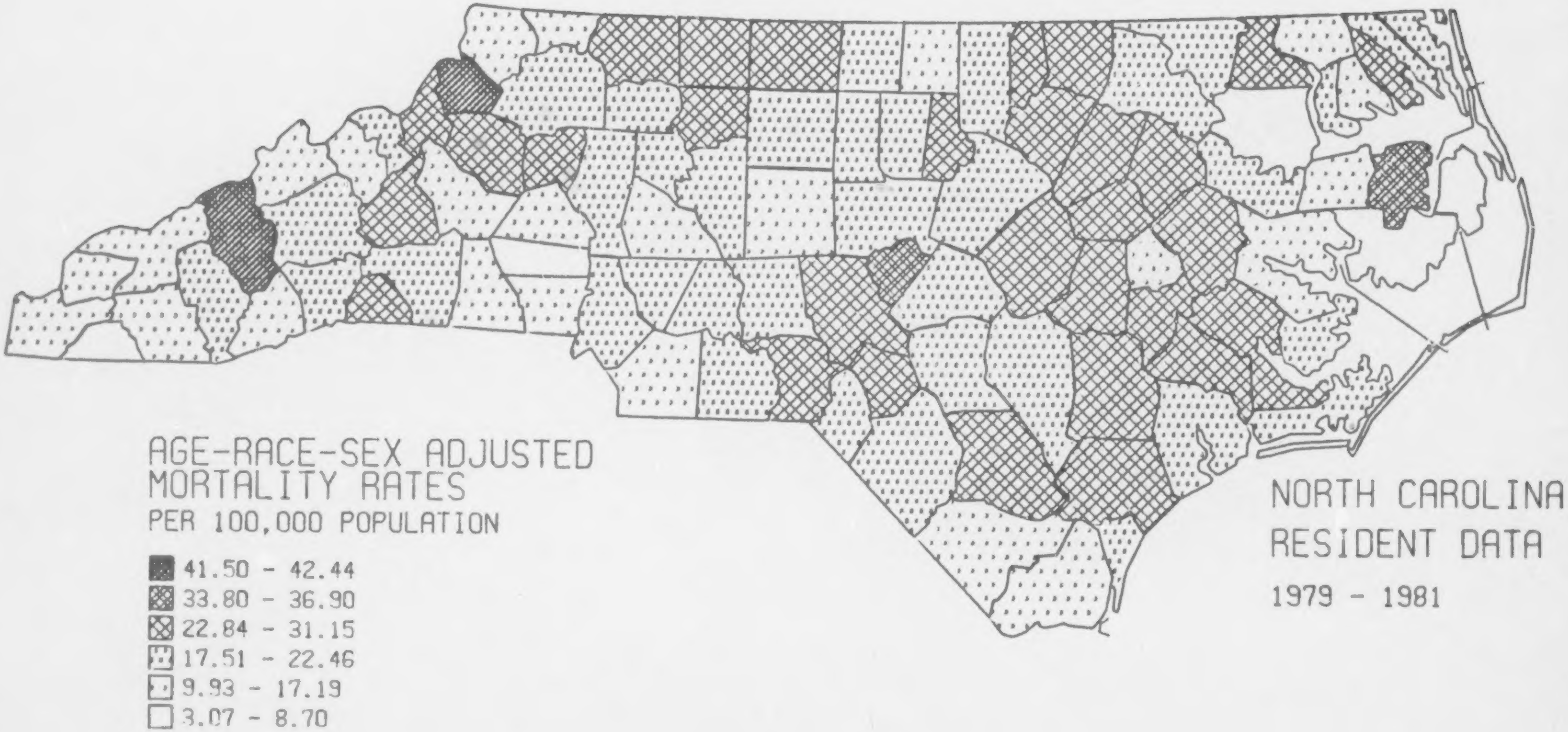

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 41.50 - 42.44
▩ 33.80 - 36.90
▩ 22.84 - 31.15
▦ 17.51 - 22.46
⬚ 9.93 - 17.19
☐ 3.07 - 8.70
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 21.B

CHRONIC LIVER DISEASE AND CIRRHOSIS

For both the state and the nation, mortality from chronic liver disease and cirrhosis continues to be a serious problem. Ranked as the ninth leading cause of death in North Carolina during 1981, a total of 653 persons died of chronic liver disease and cirrhosis, a rate of 11.0 deaths per 100,000 population. The comparable provisional United States rate was 12.9. The U.S. rate was higher even after adjusting for North Carolina's more youthful age structure (11.5 and 10.5, respectively). (5)

Recent trends indicate that the risk of chronic liver disease and cirrhosis mortality has declined. Comparing age-adjusted rates in the 1974-78 and 1979-81 periods (periods in which data were readily available), cirrhosis mortality decreased by 11 percent from a corrected 1974-78 rate of 12.8 to a 1979-81 rate of 11.4. Each race-sex group experienced declines between the two periods, with females showing the largest percent declines (19.8% for white females and 14.1% for nonwhite females). Nonwhite males, who had the highest rate (25.5) in 1979-81, experienced the smallest decline (2.1%).

Although cirrhosis is not always alcohol-related, a preponderance of the cases are. In 1981 about 50 percent of the cirrhosis deaths to N.C. residents resulted from the use of alcohol. This percentage is conservative since unspecified cirrhosis is probably alcoholic cirrhosis much of the time. Over 44 percent of the total deaths from chronic liver disease and cirrhosis involved unspecified cirrhosis of the liver.

Examining conditions mentioned on the death certificates (see Section X), 999 decedents in 1981 had chronic liver disease and cirrhosis as a mentioned condition. Of these, 65 percent had chronic liver disease and cirrhosis as the underlying cause. Further, 1,546 decedents had an alcohol-related condition (including alcoholic cirrhosis) mentioned on their death certificate, though underrporting in this area is known to be high. Of these decedents, 21 percent had chronic liver disease and cirrhosis as the underlying cause. Other underlying causes (with percent) for decedents with a mention of an alcohol-related condition were: all other accidents and adverse effects (15%), heart disease (14%), and motor vehicle accidents (9%). Notable also are findings that almost half of the known decedents with an alcohol-related condition died from an accident or cirrhosis of the liver.

Geographic Patterns

Unadjusted and age-race-sex-adjusted rates for 1979-81 are mapped in Figures 22.A and 22.B, respectively. As shown in Figure 22.A, a large cluster of contiguous high-rate counties exists in the east with several smaller pockets in the central and western portions of the state. However, these pockets of high-rate counties were due primarily to age, race, and sex factors as adjustment for them eliminates the above geographic patterns. Six counties (Avery, Catawba, Graham, Hertford, Washington, and Yancey) had a level-four or higher adjusted mortality rate, but only one of these counties (Catawba) had more than 20 deaths from chronic liver disease and cirrhosis in 1979-81 period (see Table 22). Hence, caution must be exercised in drawing any conclusions about high cirrhosis mortality in the other 5 counties.

TABLE 22

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

CHRONIC LIVER DISEASE AND CIRRHOSIS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	653	10.95	2079	11.76	11.76
REGIONS					
DHR I WESTERN	235	11.50	748	12.37	13.16
DHR II N. CENTRAL	147	11.53	459	12.12	11.70
DHR III S. CENTRAL	133	9.65	426	10.44	11.19
DHR IV EASTERN	138	10.89	446	11.84	11.92
HSA I WESTERN	113	10.95	354	11.58	13.03
HSA II PIEDMONT	121	10.74	385	11.50	11.40
HSA III S. PIEDMONT	122	12.06	394	13.19	13.53
HSA IV CAPITAL	89	10.71	268	10.90	11.21
HSA V CARDINAL	99	10.86	317	11.74	12.31
HSA VI EASTERN	109	10.39	361	11.55	11.78
COUNTIES					
1 ALAMANCE	9	9.02	24	8.04	6.87
2 ALEXANDER	3	11.74	8	10.61	9.22
3 ALLEGHANY	2	20.56	4	13.81	9.90
4 ANSON	1	3.90	9	11.74	11.80
5 ASHE	0	0.00	2	2.98	2.23
6 AVERY	2	13.52	3	6.89	40.63*
7 BEAUFORT	7	16.91	18	14.73	13.06
8 BERTIE	3	14.13	8	12.64	12.83
9 BLADEN	0	0.00	5	5.46	5.01
10 BRUNSWICK	4	10.74	9	8.28	7.58
11 BUNCOMBE	21	12.98	65	13.45	13.88
12 BURKE	4	5.45	20	9.20	8.83
13 CABARRUS	10	11.38	29	11.23	11.65
14 CALDWELL	10	14.67	29	14.31	17.26
15 CAMDEN	0	0.00	2	11.54	10.71
16 CARTERET	7	16.31	15	11.97	10.68
17 CASWELL	1	4.75	2	3.21	3.01
18 CATAWBA	16	14.98	57	18.06	23.52
19 CHATHAM	2	5.88	7	6.93	5.82
20 CHEROKEE	1	5.20	7	12.32	8.30
21 CHOWAN	2	15.82	4	10.56	8.03
22 CLAY	0	0.00	2	9.94	5.34
23 CLEVELAND	9	10.73	21	8.40	8.39
24 COLUMBUS	3	5.77	15	9.74	9.26
25 CRAVEN	5	6.96	25	11.68	14.46
26 CUMBERLAND	24	9.55	71	9.54	14.16
27 CURRITUCK	1	8.84	2	5.90	4.51
28 DARE	0	0.00	6	14.70	8.84
29 DAVIDSON	8	7.03	33	9.75	10.31
30 DAVIE	2	7.53	8	10.58	8.61
31 DUPLIN	5	12.23	20	16.33	13.84
32 DURHAM	16	10.33	48	10.45	10.52
33 EDGECOMBE	9	16.03	17	10.09	10.07
34 FORSYTH	38	15.39	112	15.27	14.43
35 FRANKLIN	6	19.64	13	14.38	15.21
36 GASTON	19	11.56	64	13.14	13.87
37 GATES	0	0.00	1	3.77	7.16
38 GRAHAM	1	14.18	2	9.35	29.23
39 GRANVILLE	6	17.36	17	16.59	17.29
40 GREENE	1	6.21	4	8.36	9.63
41 GUILFORD	31	9.75	116	12.20	12.00

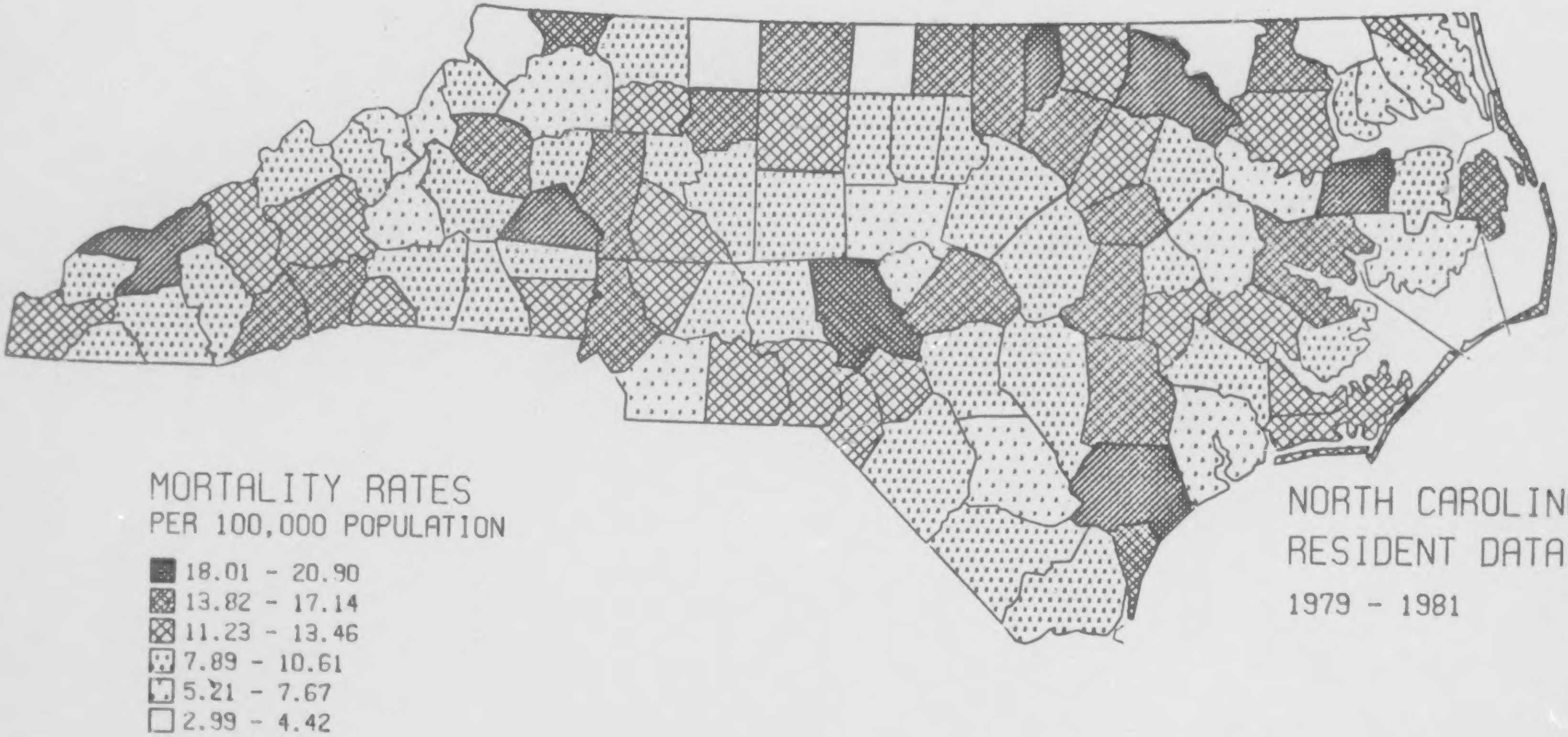
* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
CHRONIC LIVER DISEASE AND CIRRHOSIS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	8	14.43	31	18.64	15.33
43 HARNETT	11	18.22	26	14.48	15.27
44 HAYWOOD	6	12.78	16	11.45	14.00
45 HENDERSON	8	13.20	28	15.84	18.13
46 HERTFORD	6	25.51	12	17.07	22.12
47 HOKE	5	23.58	8	13.05	14.39
48 HYDE	0	0.00	1	5.59	5.38
49 IREDELL	18	21.38	37	14.87	14.68
50 JACKSON	2	7.55	8	10.32	11.31
51 JOHNSTON	6	8.35	17	7.98	7.96
52 JONES	0	0.00	3	10.34	8.10
53 LEE	4	10.78	8	7.28	7.01
54 LENOIR	8	13.33	23	12.83	12.50
55 LINCOLN	6	13.98	10	7.89	8.05
56 MCDOWELL	3	8.36	8	7.59	5.81
57 MACON	3	14.14	6	9.72	5.37
58 MADISON	2	11.41	5	9.82	6.12
59 MARTIN	2	7.58	6	7.66	7.76
60 MECKLENBURG	50	12.14	190	15.66	15.88
61 MITCHELL	1	6.88	3	6.91	4.79
62 MONTGOMERY	2	8.80	7	10.45	10.18
63 MOORE	12	23.39	31	20.47	17.66
64 NASH	12	17.54	27	13.31	12.39
65 NEW HANOVER	17	16.09	49	15.74	15.73
66 NORTHAMPTON	0	0.00	3	4.42	1.52
67 ONSLOW	8	7.05	21	6.18	12.61
68 ORANGE	7	9.03	19	8.22	11.01
69 PAMLICO	0	0.00	3	9.69	9.12
70 PASQUOTANK	2	7.03	6	7.04	5.83
71 PENDER	5	22.21	12	18.03	15.68
72 PERQUIMANS	0	0.00	2	6.98	7.27
73 PERSON	5	16.95	15	17.13	15.60
74 PITT	5	5.42	18	6.63	7.17
75 POLK	1	7.45	5	12.77	16.74
76 RANDOLPH	9	9.67	22	8.00	9.96
77 RICHMOND	1	2.18	16	11.74	10.76
78 ROBESON	7	6.80	32	10.47	10.84
79 ROCKINGHAM	15	17.72	37	14.75	13.90
80 ROWAN	12	11.97	38	12.77	11.96
81 RUTHERFORD	6	11.00	13	8.04	7.74
82 SAMPSON	4	8.02	15	10.08	8.69
83 SCOTLAND	3	9.21	12	12.36	11.92
84 STANLY	4	8.29	15	10.38	9.10
85 STOKES	0	0.00	4	4.01	3.28
86 SURRY	6	10.01	17	9.54	7.42
87 SWAIN	0	0.00	6	1[illegible].36	19.01
88 TRANSYLVANIA	2	8.37	10	14.16	15.74
89 TYRRELL	0	0.00	1	8.25	5.78
90 UNION	3	4.16	11	5.21	5.64
91 VANCE	6	16.30	23	20.90	17.20
92 WAKE	28	9.09	95	10.49	12.08
93 WARREN	3	18.45	6	12.26	10.99
94 WASHINGTON	2	13.61	8	18.01	21.58
95 WATAUGA	2	6.12	10	10.45	10.09
96 WAYNE	11	11.28	42	14.38	15.49
97 WILKES	4	6.75	12	6.78	11.47
98 WILSON	5	7.90	32	16.94	15.43
99 YADKIN	2	6.89	10	11.66	18.80
100 YANCEY	4	26.64	4	8.90	23.19

* SEE SECTION II

CHRONIC LIVER DISEASE AND CIRRHOSIS


MORTALITY RATES
PER 100,000 POPULATION
18.01 - 20.90
13.82 - 17.14
11.23 - 13.46
7.89 - 10.61
5.21 - 7.67
2.99 - 4.42

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 22.A

CHRONIC LIVER DISEASE AND CIRRHOSIS

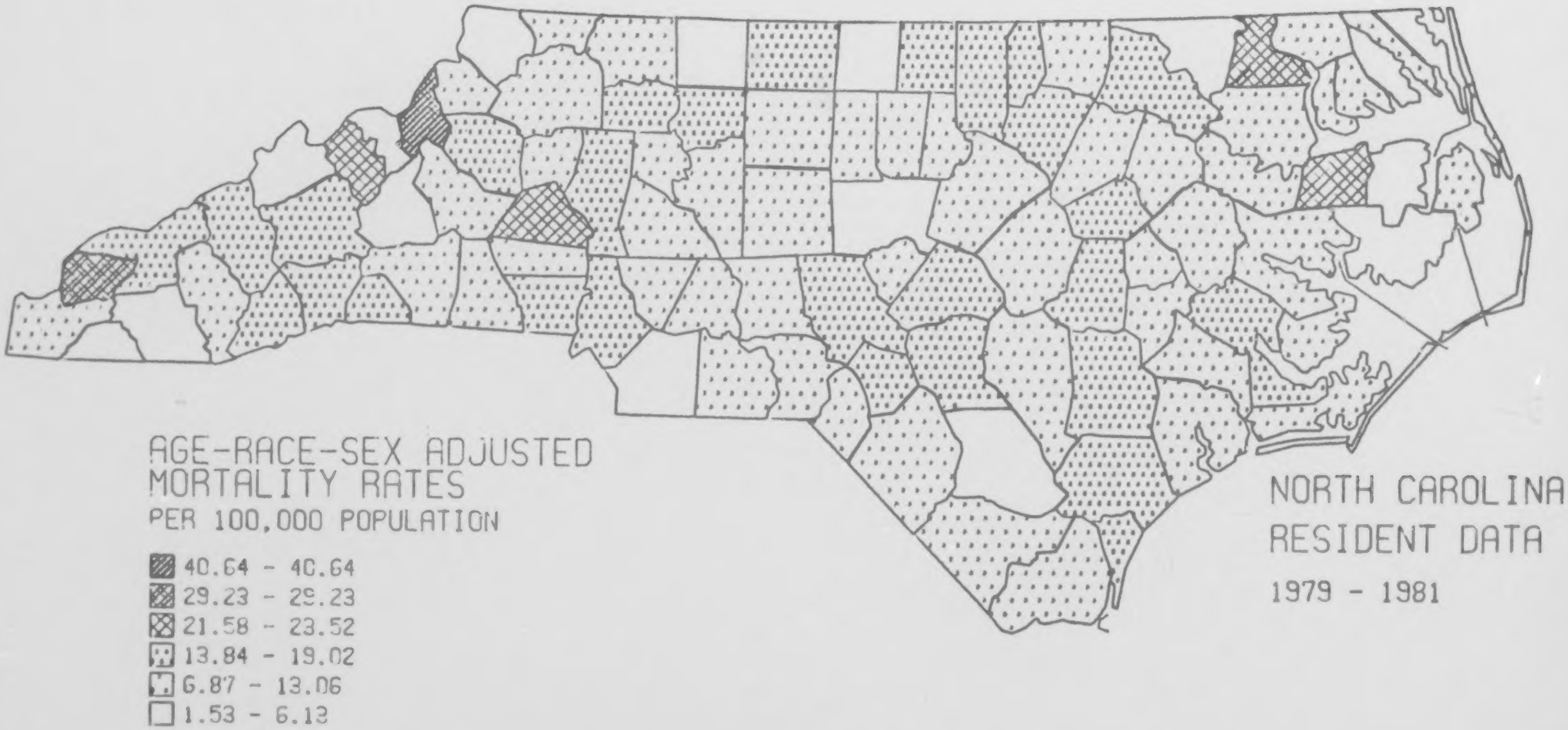

AGE-RACE-SEX ADJUSTED MORTALITY RATES
PER 100,000 POPULATION
▩ 40.64 - 40.64
▨ 29.23 - 29.23
⊠ 21.58 - 23.52
⁙ 13.84 - 19.02
⁚ 6.87 - 13.06
☐ 1.53 - 6.13
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 22.B

NEPHRITIS, NEPHROTIC SYNDROME, AND NEPHROSIS

Following a steady decline during the sixties, North Carolina's mortality from nephritis, nephrotic syndrome, or nephrosis has changed very little. The published 1978 rate of 5.1 deaths per 100,000 population compares to a 1970 rate of 4.8. In 1981 the rate was 8.6, suggesting a substantial increase over the past three years. However, adjusting the 1978 rate for substantial changes in the International Classification of Diseases for nephritis/nephrosis and for a change in the population estimate for that year, a different mortality picture emerges. The corrected rate for 1978 is 8.5, suggesting that virtually no change occurred between 1978 and 1981 in nephritis/nephrosis mortality.

Taking into consideration changes in age composition via age adjustment shows yet another trend. Using deaths in the 1974-78 and 1979-81 periods and correcting the 1974-78 rates as described above, mortality from nephritis/nephrosis has actually declined by about 17 percent. Nonwhites accounted for much of this decline, with nonwhite male mortality rates declining by 26.4 percent and nonwhite female rates by 22.2 percent. However, the rates for nonwhite males and females continue to be over three times the corresponding white rates. Though all rates have declined somewhat over time, the racial differences have changed very little.

Elderly persons are at higher risk of nephritis/nephrosis mortality regardless of race or sex. In 1981 over 70 percent of all nephritis and nephrosis deaths occurred to persons 65 years of age or older, a percentage which prevailed for each race-sex group. With the exception of white males, the percentage of deaths to elderly persons has increased by at least 25 percent since 1979.

Nephritis/nephrosis is a contributor to other causes of death, particularly heart disease. While there were 510 deaths in 1981 with nephritis, nephrotic syndrome, or nephrosis as the underlying cause of death, 2400 death certificates had a mention of these conditions. Of these certificates, 24 percent had heart disease as the underlying cause, 14 percent had cancer, 5 percent had cerebrovascular disease, and 5 percent had diabetes.

Risk Factors

The causes of kidney failure are not well known. Nonwhites are more vulnerable to death from nephritis, nephrotic syndrome, and nephrosis, and their greater risk parallels their risk of hypertension which often accompanies renal insufficiency (6). While nephritis/nephrosis may kill at any age, those above age 45 are at a much higher risk of death. The Fall 1982 North Carolina Citizen Survey found that kidney disease (which as defined in the survey included some acute conditions) was more often a problem of the elderly, poor, and less educated (3).

Geographic Patterns

County unadjusted and age-race-sex-adjusted rates for nephritis/nephrosis are shown in Figures 23.A and 23.B respectively for 1979-81. Figure 23.A shows that 90 of the 100 counties have level-three or lower rates, with the lowest rates in the western part of the state. Martin was the only county with a level-six rate.

Adjusting for age, race, and sex did not uncover any significant patterns of high rates (Figure 23.B). In fact, 84 counties had a level-three or lower adjusted rate. Franklin, Hyde, and Martin counties continue to be among the counties with the highest rates, though the rate for Hyde County should be considered very cautiously since it is based on only 4 deaths in the numerator.

TABLE 23

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

NEPHRITIS, NEPHROTIC SYNDROME AND NEPHROSIS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	510	8.55	1434	8.11	8.11
REGIONS					
DHR I WESTERN	184	9.00	470	7.77	8.00
DHR II N. CENTRAL	114	8.94	311	8.21	8.08
DHR III S. CENTRAL	96	6.97	322	7.89	8.42
DHR IV EASTERN	116	9.16	331	8.79	7.94
HSA I WESTERN	79	7.65	214	7.00	6.57
HSA II PIEDMONT	92	8.16	247	7.37	7.64
HSA III S. PIEDMONT	105	10.38	256	8.57	9.22
HSA IV CAPITAL	73	8.78	221	8.99	8.81
HSA V CARDINAL	62	6.80	211	7.81	8.05
HSA VI EASTERN	99	9.43	285	9.12	8.25
COUNTIES					
1 ALAMANCE	5	5.01	15	5.03	4.88
2 ALEXANDER	3	11.74	11	14.58	13.60
3 ALLEGHANY	2	20.56	5	17.27	13.93*
4 ANSON	3	11.71	13	16.96	13.62
5 ASHE	1	4.39	5	7.47	4.44
6 AVERY	2	13.52	3	6.89	5.47
7 BEAUFORT	3	7.24	10	8.18	6.86
8 BERTIE	3	14.13	9	14.22	6.04
9 BLADEN	3	9.75	12	13.12	8.18
10 BRUNSWICK	1	2.68	7	6.44	5.99
11 BUNCOMBE	10	6.18	28	5.79	5.17
12 BURKE	6	8.18	12	5.52	5.70
13 CABARRUS	15	17.07	24	9.29	8.37
14 CALDWELL	6	8.80	14	6.91	9.76*
15 CAMDEN	0	0.00	1	5.77	4.50
16 CARTERET	8	18.64	17	13.57	17.60
17 CASWELL	1	4.75	4	6.43	2.96
18 CATAWBA	2	1.87	15	4.75	5.80
19 CHATHAM	2	5.88	8	7.92	6.81
20 CHEROKEE	3	15.61	4	7.04	3.71
21 CHOWAN	5	39.56	9	23.77	10.97
22 CLAY	0	0.00	0	0.00	0.00
23 CLEVELAND	7	8.34	15	6.00	5.86
24 COLUMBUS	9	17.32	21	13.63	12.04
25 CRAVEN	5	6.96	19	8.87	10.09
26 CUMBERLAND	8	3.18	22	2.95	4.98
27 CURRITUCK	1	8.84	2	5.90	6.38
28 DARE	0	0.00	4	9.80	8.73
29 DAVIDSON	13	11.43	26	7.68	8.66
30 DAVIE	2	7.53	5	6.61	7.29
31 DUPLIN	3	7.34	9	7.34	6.25
32 DURHAM	19	12.27	52	11.32	9.40
33 EDGECOMBE	5	8.90	10	5.93	3.98
34 FORSYTH	22	8.91	57	7.77	7.40
35 FRANKLIN	8	26.19	18	19.91	14.19
36 GASTON	10	6.08	43	8.83	11.79
37 GATES	0	0.00	2	7.55	6.61
38 GRAHAM	0	0.00	2	9.35	7.13
39 GRANVILLE	3	8.68	15	14.64	9.93
40 GREENE	0	0.00	4	8.36	10.59
41 GUILFORD	21	6.60	65	6.83	7.04

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
NEPHRITIS, NEPHROTIC SYNDROME AND NEPHROSIS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	4	7.21	16	9.62	9.43
43 HARNETT	6	9.94	16	8.91	8.93
44 HAYWOOD	7	14.92	12	8.58	5.72
45 HENDERSON	2	3.30	11	6.22	5.42
46 HERTFORD	2	8.50	8	11.38	7.92
47 HOKE	2	9.43	8	13.05	13.40
48 HYDE	2	33.33	4	22.36	21.36*
49 IREDELL	9	10.69	20	8.04	8.08
50 JACKSON	0	0.00	3	3.87	3.48
51 JOHNSTON	5	6.95	20	9.39	9.09
52 JONES	2	20.60	4	13.78	10.35
53 LEE	3	8.08	9	8.19	8.85
54 LENOIR	6	9.99	17	9.48	7.19
55 LINCOLN	3	6.99	10	7.89	8.31
56 MCDOWELL	4	11.15	10	9.49	8.70
57 MACON	3	14.14	9	14.58	6.71
58 MADISON	2	11.41	4	7.86	4.91
59 MARTIN	3	11.38	22	28.12	23.41
60 MECKLENBURG	38	9.23	86	7.09	8.16
61 MITCHELL	3	20.66	9	20.75	11.36
62 MONTGOMERY	4	17.61	11	16.42	13.52
63 MOORE	4	7.79	12	7.92	6.39
64 NASH	8	11.69	17	8.38	7.59
65 NEW HANOVER	6	5.68	15	4.81	4.79
66 NORTHAMPTON	3	13.33	7	10.31	6.12
67 ONSLOW	6	5.28	15	4.41	11.22
68 ORANGE	7	9.03	19	8.22	10.31
69 PAMLICO	0	0.00	2	6.46	3.66
70 PASQUOTANK	6	21.10	11	12.92	8.50
71 PENDER	1	4.44	3	4.50	3.63
72 PERQUIMANS	1	10.39	6	20.94	12.19
73 PERSON	5	16.95	8	9.13	7.08
74 PITT	5	5.42	17	6.26	5.41
75 POLK	3	22.36	6	15.33	12.82
76 RANDOLPH	4	4.29	14	5.09	5.31
77 RICHMOND	5	10.90	16	11.74	10.57
78 ROBESON	4	3.88	32	10.47	8.98
79 ROCKINGHAM	8	9.45	29	11.56	11.18
80 ROWAN	13	12.97	28	9.41	7.31
81 RUTHERFORD	6	11.00	16	9.89	9.19
82 SAMPSON	4	8.02	13	8.74	7.39
83 SCOTLAND	2	6.14	10	10.30	9.25
84 STANLY	6	12.43	18	12.45	12.73
85 STOKES	6	17.61	11	11.04	16.78
86 SURRY	7	11.68	16	8.98	9.04
87 SWAIN	1	9.65	2	6.45	3.96
88 TRANSYLVANIA	0	0.00	1	1.41	0.83
89 TYRRELL	0	0.00	0	0.00	0.00
90 UNION	11	15.26	27	12.79	15.54
91 VANCE	3	8.15	14	12.72	9.92
92 WAKE	15	4.87	49	5.41	6.86
93 WARREN	3	18.45	9	18.39	6.62
94 WASHINGTON	1	6.80	4	9.00	5.20
95 WATAUGA	2	6.12	4	4.18	3.22
96 WAYNE	11	11.28	23	7.37	9.06
97 WILKES	4	6.75	11	6.21	6.87
98 WILSON	6	9.48	16	8.47	6.13
99 YADKIN	3	10.33	5	5.83	8.94
100 YANCEY	0	0.00	2	4.45	2.90

* SEE SECTION II

NEPHRITIS,NEPHROITC SYNDROME & NEPHROSIS

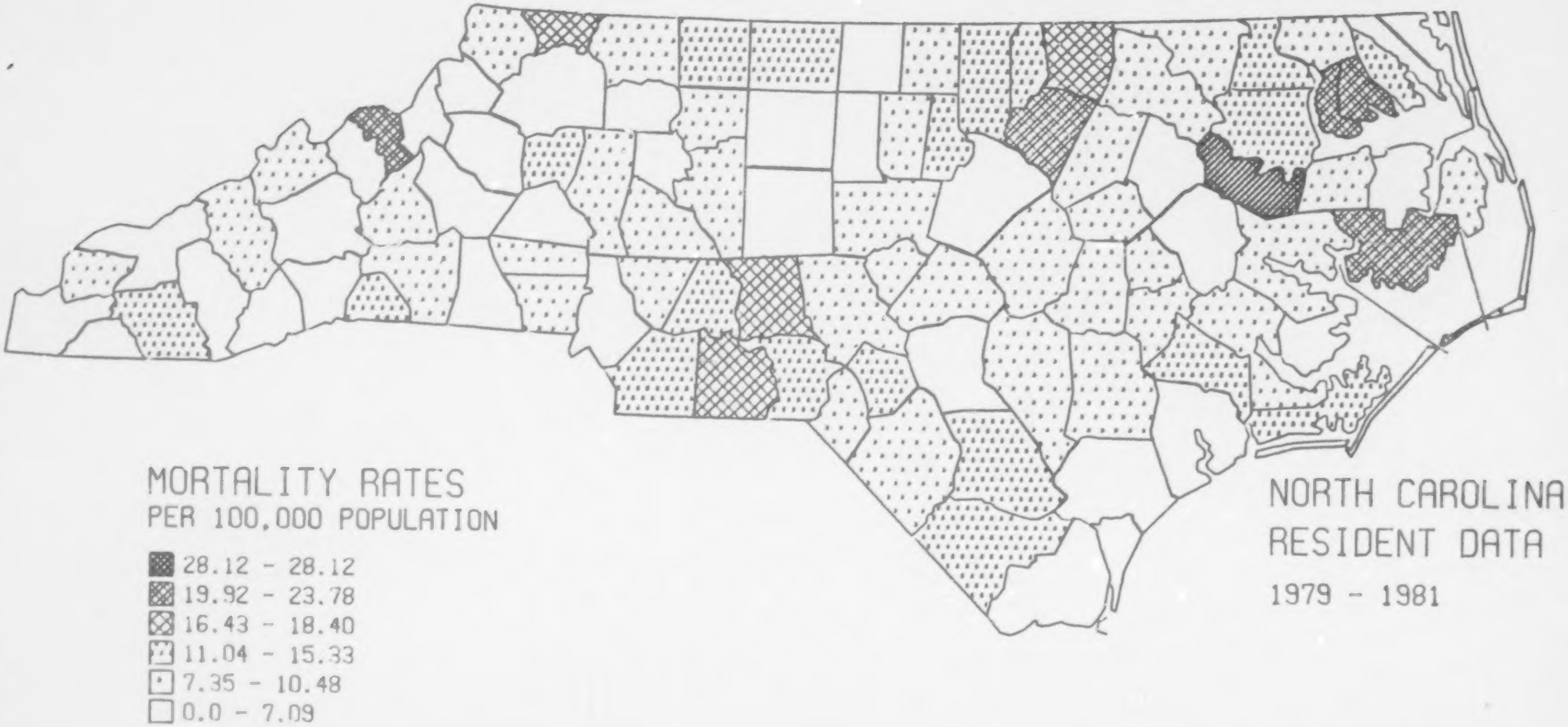

NORTH CAROLINA
RESIDENT DATA
1979 - 1981
MORTALITY RATES
PER 100,000 POPULATION
▩ 28.12 - 28.12
▩ 19.92 - 23.78
▩ 16.43 - 18.40
▨ 11.04 - 15.33
⊡ 7.35 - 10.48
☐ 0.0 - 7.09

FIGURE 23.A

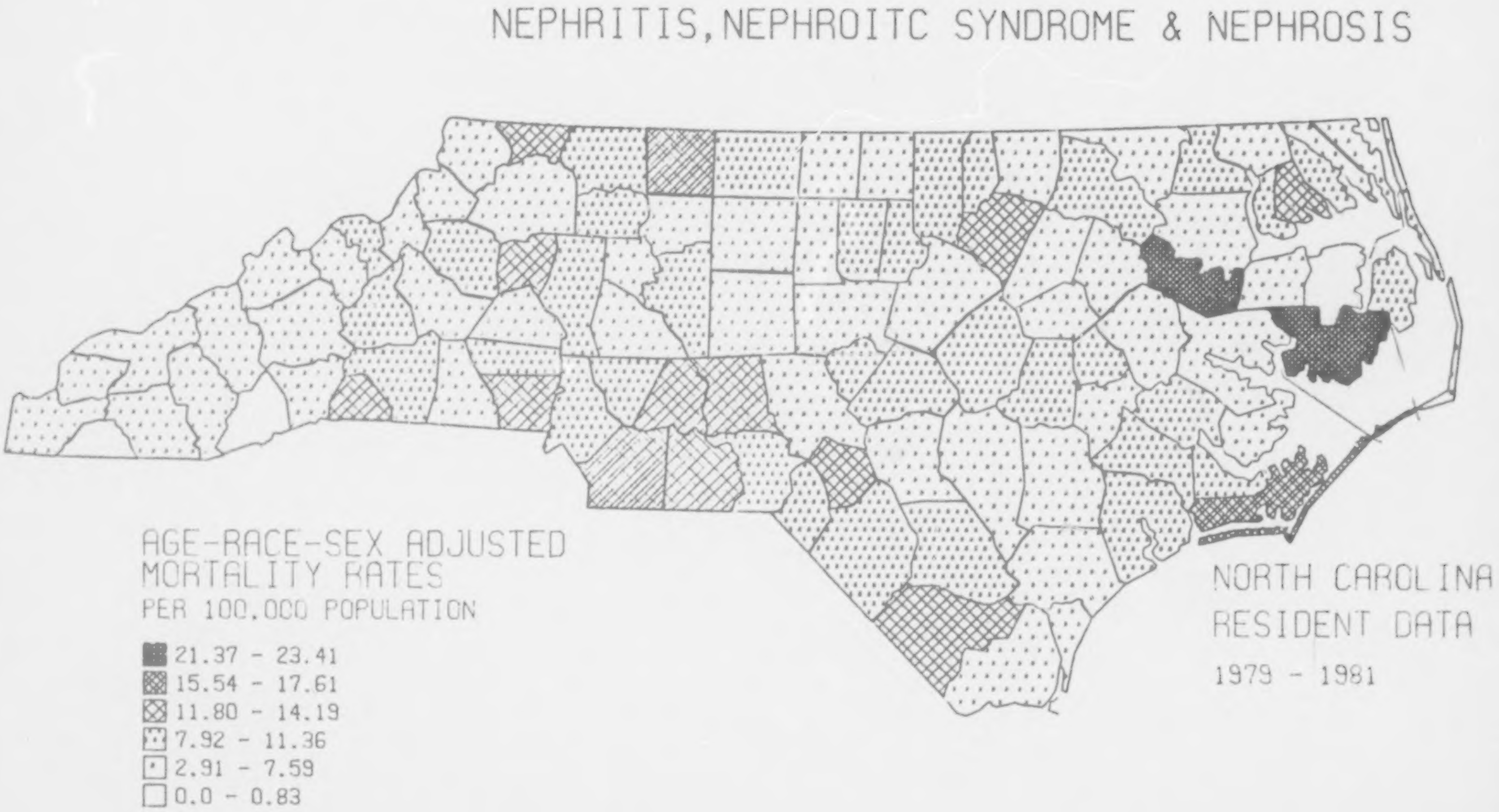

NEPHRITIS,NEPHROITC SYNDROME & NEPHROSIS
AGE-RACE-SEX ADJUSTED MORTALITY RATES
PER 100.000 POPULATION
▩ 21.37 - 23.41
▩ 15.54 - 17.61
▨ 11.80 - 14.19
⛆ 7.92 - 11.36
⊡ 2.91 - 7.59
☐ 0.0 - 0.83
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 23.B

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VIII. Major External Causes of Mortality

ACCIDENTS

Of all deaths to North Carolina residents during 1981, six percent or 2,995 fatalities resulted from accidental injury, marking the first time that the number has been below 3,000 since 1964. Still, accidents remain the fourth most frequent cause of death in North Carolina, exceeded only by heart disease, cancer, and cerebrovascular disease.

The North Carolina occurrence rate for accidents in 1981 was 50.3 deaths per 100,000 population, 16 percent higher than the provisional U.S. rate of 43.2 but 13 percent below the N.C. rate of 58.0 in 1976. Despite the decline from 1976 to 1981, North Carolina's occurrence rate continues to rank in the top quartile of the 50 states (1).

Among North Carolina residents, motor vehicle accidents were the major cause of accidental deaths. Numbering 1,525, these deaths represented 50.9 percent of the total accidental deaths during 1981. The majority of these deaths occurred to white males (54%), and to persons 15-24 (35%) and 25-34 (19%) years of age. Following motor vehicle deaths, deaths resulting from falls ranked as the second leading cause, accounting for 268 deaths or 8.9 percent of all accidental deaths during the year. Most of these deaths (71.6%) were to persons 65 years of age or older. Fires ranked third among the leading causes of accidental deaths, accounting for 261 or 8.7 percent of such deaths in 1981. The next four leading causes of accidental deaths were: drownings, 138 (5%); poisoning by solid and liquid substances, 107 (4%); and surgical and medical complications and misadventures*, 105 (4%). Of these latter causes, only deaths from surgical and medical complications and misadventures increased from 1976 to 1981, showing an increase of 40 percent from 75 to 105.

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*ICD codes 870-876, 878-879.

For the United States, the preliminary leading causes of accidental deaths in 1981 were: motor vehicles, 51.3%; falls, 11.8%; drownings, 6.1%; fires, 4.9%; suffocation by ingestion of food and other objects, 3.1%; poisoning by solid and liquid substances, 2.6%; and firearms, 1.9% (1).

In order to present a more complete analysis of accidental deaths, motor vehicle accidents and accidents excluding motor vehicles are examined separately in the following pages.

MOTOR VEHICLE ACCIDENTS

As discussed previously, resident motor vehicle deaths (1525) accounted for 51 percent of the state's accidental deaths in 1981. The resulting death rate was 25.6 per 100,000 population, 12 percent higher than the provisional 1981 United States rate of 22.8 (2).

Recent trends indicate that North Carolina has experienced a significant downturn in its motor vehicle death rate, which fell nearly 30 percent between 1974 and 1981. Much of this downturn was coincident with the gasoline shortage in the seventies and legislation establishing a maximum speed limit of 55 miles per hour nationwide. Improved emergency medical services statewide has also had an impact on the rate. In addition, a number of southcentral and eastern counties experienced some rather remarkable reductions in motor vehicle mortality. For example, Onslow County's rate dropped by nearly two-thirds while Craven and Bladen counties' rates dropped by about one-half between 1972-76 and 1979-81.

The 1981 motor vehicle death rates ranged from 10.0 for North Carolinians under age 15 to 47.3 for residents 15-24. With the exception of the latter age group, no age group had a rate greater than 30 per 100,000 population.

Unfortunately, the number of young children (i.e., ages 0-4) killed in motor vehicle accidents has remained about the same in the last three years (38 in 1979, 40 in 1980, and 41 in 1981). Because studies have shown that restrained children are 50 to 70 percent less likely to be injured or killed in an auto accident than unrestrained children (3), North Carolina passed and implemented the Child Passenger Restraint Law in July 1982. Strict enforcement of this law along with public education campaigns on the use of safety seats or belts for children are expected to reduce the number of serious injuries and deaths from motor vehicle accidents. In the first six months following the implementation of the Restraint Law, about 1700 young children were involved in an accident and approximately 700 of those were using a restraint system at the time of the accident. Of these 700, no deaths occurred, while among the 1,000 not using a restraint system seven deaths occurred. Data are not yet available on injuries and their severity.

By race and sex, males have a much higher risk of mortality via motor vehicles than females, with nonwhite males having the highest age-adjusted rate in 1981 (51.3) and nonwhite females the lowest (10.4). With the exception of the 15-24 age group, nonwhite males had a higher risk of mortality than whites at every ten-year age interval in 1981, a pattern also evident in 1976.

Between 1976 and 1981, the age-specific death rates among the four race-sex groups decreased for all but 8 age-race-sex groups. Five of these eight groups increased more than 10%. These groups (with percent increase) were:

- White males: Ages 0-4 (11%)
- Nonwhite males: Ages 35-44 (63%) and 65+ (14%)
- Nonwhite females: Ages 55-64 (44%) and 65+ (34%)

For all types of motor vehicle accidents combined, 48 percent of North Carolina's 1981 fatalities were drivers of a motor vehicle other than a motorcycle, 21 percent were passengers in a motor vehicle other than a motorcycle, and 20 percent were pedestrians or nonmotorists. In 1976 the corresponding percentages were 46, 26, and 19. An additional 6.2 percent of the 1981 fatalities included motorcyclists (84 deaths) and passengers on a motorcycle (4 deaths). The resulting death rate for motorcycle accidents was

1.48 per 100,000 population, 14% higher than the rate of 1.30 in 1976 but 10% lower than the rate of 1.62 in 1973. Unfortunately, the number of motorcycle deaths among persons under 15 years of age has remained about the same (approximately 4 deaths per year since 1976).

Risk Factors

The biggest single contributing factor in motor vehicle fatalities is alcohol. As reported by the Centers for Disease Control, half of all deaths from motor vehicle crashes and one-third of all accidents in which the occupants received serious injuries involved drivers with a blood-alcohol concentration of 0.10% or higher (3). Further, according to a study by the Office of the Chief Medical Examiner (4), 61 percent of drivers killed in single-vehicle crashes in North Carolina during 1980 were legally under the influence of alcohol (blood alcohol concentration of .10% or more) and another 11 percent had been drinking. Corresponding percentages for drivers killed in multiple-vehicle crashes were 22 and 11 respectively. Among pedestrians killed by motor vehicles, 57 percent were legally under the influence and an additional 10 percent had been drinking (4). Other contributing factors in motor vehicle fatalities include age, physiological or psychological state, terrain, road hazards, condition of vehicle, time of day, availability of emergency care, and distance from emergency medical services (5).

Geographic Patterns

Data shown in Table 24 and corresponding maps will aid in examining resident motor vehicle mortality among the counties. As shown in Figure 24.A, residents of the northeast part of the state experienced higher rates of motor vehicle accident mortality. A string of high-rate counties extends from

Granville and Warren counties southward to Harnett County. Swain County had the highest rate (61.3) and Tyrrell County the lowest (8.3).

Adjustment for age, race, and sex did not substantially alter the pattern of motor vehicle mortality among counties. The eastern counties continue to have higher rates, but the string of high-rate eastern counties now extends from Virginia to South Carolina. With the exception of two counties (Graham and Mitchell), each of the 18 counties with a level-four or higher unadjusted rate also had a level-four or higher adjusted rate. Swain continues to be the only county with a level-six rate.

Procedures described in Section II were used to test whether the clusters of counties with high motor vehicle mortality rates (unadjusted and adjusted) are statistically significant. The map below shows that the band of contiguous counties with high unadjusted rates forms a statistically significant cluster. However, the band of counties with high adjusted rates do not form a statistically significant cluster.

MOTOR VEHICLE ACCIDENTS

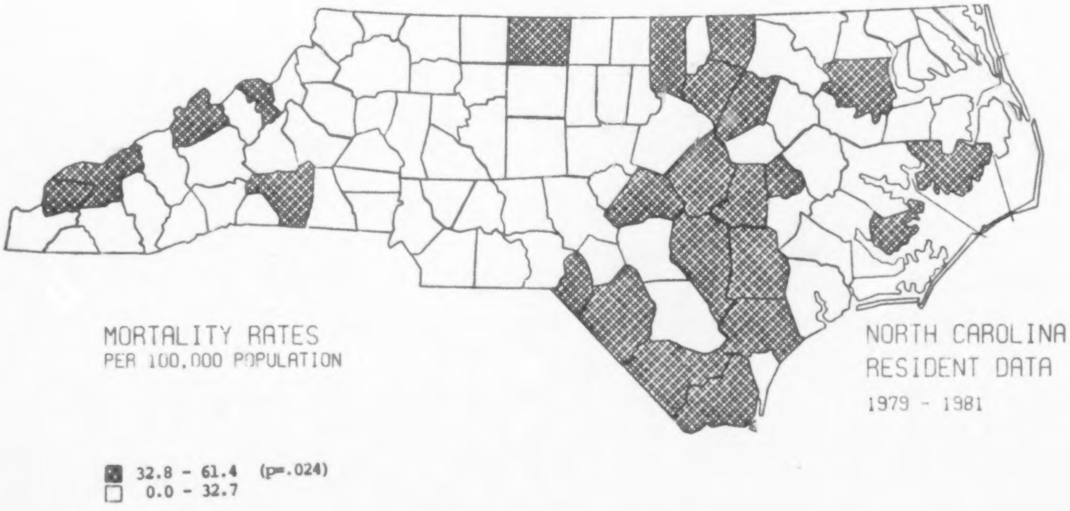


TABLE 24

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

MOTOR VEHICLE ACCIDENTS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE * 1979-81
NORTH CAROLINA	1525	25.58	4632	26.21	26.21
REGIONS					
DHR I WESTERN	486	23.78	1484	24.55	24.94
DHR II N. CENTRAL	335	26.29	1012	26.72	27.40
DHR III S. CENTRAL	351	25.48	1095	26.85	25.86
DHR IV EASTERN	353	27.87	1041	27.65	26.87
HSA I WESTERN	241	23.35	777	25.42	26.23
HSA II PIEDMONT	278	24.68	859	25.66	26.33
HSA III S. PIEDMONT	245	24.22	707	23.67	24.18
HSA IV CAPITAL	207	24.92	615	25.02	24.15
HSA V CARDINAL	265	29.07	815	30.19	29.60
HSA VI EASTERN	289	27.55	859	27.49	26.33
COUNTIES					
1 ALAMANCE	27	27.08	81	27.16	28.51
2 ALEXANDER	6	23.48	24	31.83	29.02
3 ALLEGHANY	1	10.28	6	20.72	18.15
4 ANSON	7	27.34	24	31.32	34.72
5 ASHE	5	21.99	14	20.91	16.56
6 AVERY	3	20.28	13	29.86	22.09
7 BEAUFORT	9	21.74	35	28.65	32.89
8 BERTIE	8	37.69	26	41.09	47.62
9 BLADEN	8	26.01	26	28.43	32.15
10 BRUNSWICK	18	48.36	40	36.83	38.15
11 BUNCOMBE	34	21.02	112	23.18	21.76
12 BURKE	12	16.37	38	17.48	17.38
13 CABARRUS	23	26.18	59	22.84	21.99
14 CALDWELL	17	24.94	48	23.69	27.08
15 CAMDEN	1	17.60	4	23.09	18.43
16 CARTERET	13	30.30	31	24.74	22.82
17 CASWELL	9	42.83	20	32.17	30.67
18 CATAWBA	29	27.16	88	27.88	25.84
19 CHATHAM	5	14.70	26	25.76	25.67
20 CHEROKEE	3	15.61	15	26.40	40.99
21 CHOWAN	4	31.65	9	23.77	21.96
22 CLAY	1	14.37	3	14.91	10.68
23 CLEVELAND	25	29.81	60	24.01	25.39
24 COLUMBUS	18	34.64	51	33.11	35.13
25 CRAVEN	16	22.27	42	19.62	18.20
26 CUMBERLAND	55	21.90	174	23.39	22.50
27 CURRITUCK	2	17.68	10	29.51	31.25
28 DARE	5	34.57	12	29.40	24.26
29 DAVIDSON	29	25.51	103	30.43	31.14
30 DAVIE	6	22.61	20	26.45	32.29
31 DUPLIN	18	44.05	46	37.55	39.57
32 DURHAM	22	14.21	61	13.28	13.11
33 EDGECOMBE	20	35.63	44	26.12	31.51
34 FORSYTH	58	23.49	164	22.37	22.71
35 FRANKLIN	16	52.39	42	46.47	42.38
36 GASTON	35	21.31	137	28.13	29.68
37 GATES	5	55.74	8	30.23	28.32
38 GRAHAM	2	28.36	8	37.40	30.15
39 GRANVILLE	15	43.41	37	36.12	35.11
40 GREENE	2	12.43	23	48.08	42.75
41 GUILFORD	64	20.13	205	21.56	22.04

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
MOTOR VEHICLE ACCIDENTS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	14	25.25	43	25.86	24.62
43 HARNETT	25	41.42	74	41.23	40.63
44 HAYWOOD	7	14.92	28	20.04	24.08
45 HENDERSON	17	28.05	40	22.64	26.79
46 HERTFORD	7	29.77	21	29.88	24.66
47 HOKE	6	28.29	17	27.73	31.17
48 HYDE	3	50.00	7	39.13	44.73
49 IREDELL	25	29.70	59	23.72	24.52
50 JACKSON	1	3.77	13	16.77	17.02
51 JOHNSTON	25	34.79	85	39.93	41.96
52 JONES	2	20.60	7	24.12	30.72
53 LEE	9	24.26	33	30.05	31.98
54 LENOIR	21	34.99	51	28.45	27.14
55 LINCOLN	7	16.31	35	27.63	28.81
56 MCDOWELL	6	16.72	27	25.64	27.24
57 MACON	7	33.01	13	21.06	30.15
58 MADISON	3	17.12	17	33.41	26.17
59 MARTIN	8	30.35	20	25.56	21.88
60 MECKLENBURG	91	22.10	250	20.61	21.05
61 MITCHELL	5	34.44	19	43.81	32.60
62 MONTGOMERY	7	30.83	19	28.37	28.62
63 MOORE	6	11.69	36	23.77	25.70
64 NASH	23	33.63	79	38.96	39.72
65 NEW HANOVER	18	17.04	68	21.84	21.67
66 NORTHAMPTON	6	26.67	18	26.52	20.11
67 ONSLOW	15	13.22	53	15.59	14.06
68 ORANGE	30	38.73	70	30.31	31.10
69 PAMLICO	4	38.33	13	41.99	51.08
70 PASQUOTANK	7	24.62	14	16.44	17.65
71 PENDER	10	44.42	23	34.56	36.12
72 PERQUIMANS	2	20.79	7	24.43	23.92
73 PERSON	5	16.95	25	28.56	30.17
74 PITT	29	31.47	75	27.63	28.95
75 POLK	2	14.90	4	10.22	8.57
76 RANDOLPH	27	29.01	87	31.64	35.22
77 RICHMOND	10	21.80	43	31.55	31.46
78 ROBESON	44	42.76	129	42.23	37.26
79 ROCKINGHAM	30	35.44	84	33.48	34.63
80 ROWAN	26	25.94	74	24.87	25.22
81 RUTHERFORD	24	44.00	60	37.10	36.52
82 SAMPSON	17	34.09	52	34.97	37.03
83 SCOTLAND	16	49.14	39	40.17	40.69
84 STANLY	13	26.94	38	26.30	27.22
85 STOKES	7	20.55	27	27.09	30.38
86 SURRY	16	26.71	45	25.27	23.72
87 SWAIN	4	38.61	19	61.32	67.98
88 TRANSYLVANIA	2	8.37	13	18.41	15.27
89 TYRRELL	0	0.00	1	8.25	6.89
90 UNION	25	34.68	55	26.06	27.38
91 VANCE	13	35.32	31	28.17	31.93
92 WAKE	59	19.17	187	20.66	20.21
93 WARREN	8	49.21	18	36.79	44.80
94 WASHINGTON	5	34.03	8	18.01	17.11
95 WATAUGA	6	18.36	24	25.08	19.38
96 WAYNE	27	27.70	96	32.88	32.44
97 WILKES	15	25.34	57	32.22	39.57
98 WILSON	13	20.54	56	29.65	31.30
99 YADKIN	5	17.22	23	26.82	30.81
100 YANCEY	4	26.64	14	31.17	25.08

* SEE SECTION II

MOTOR VEHICLE ACCIDENTS

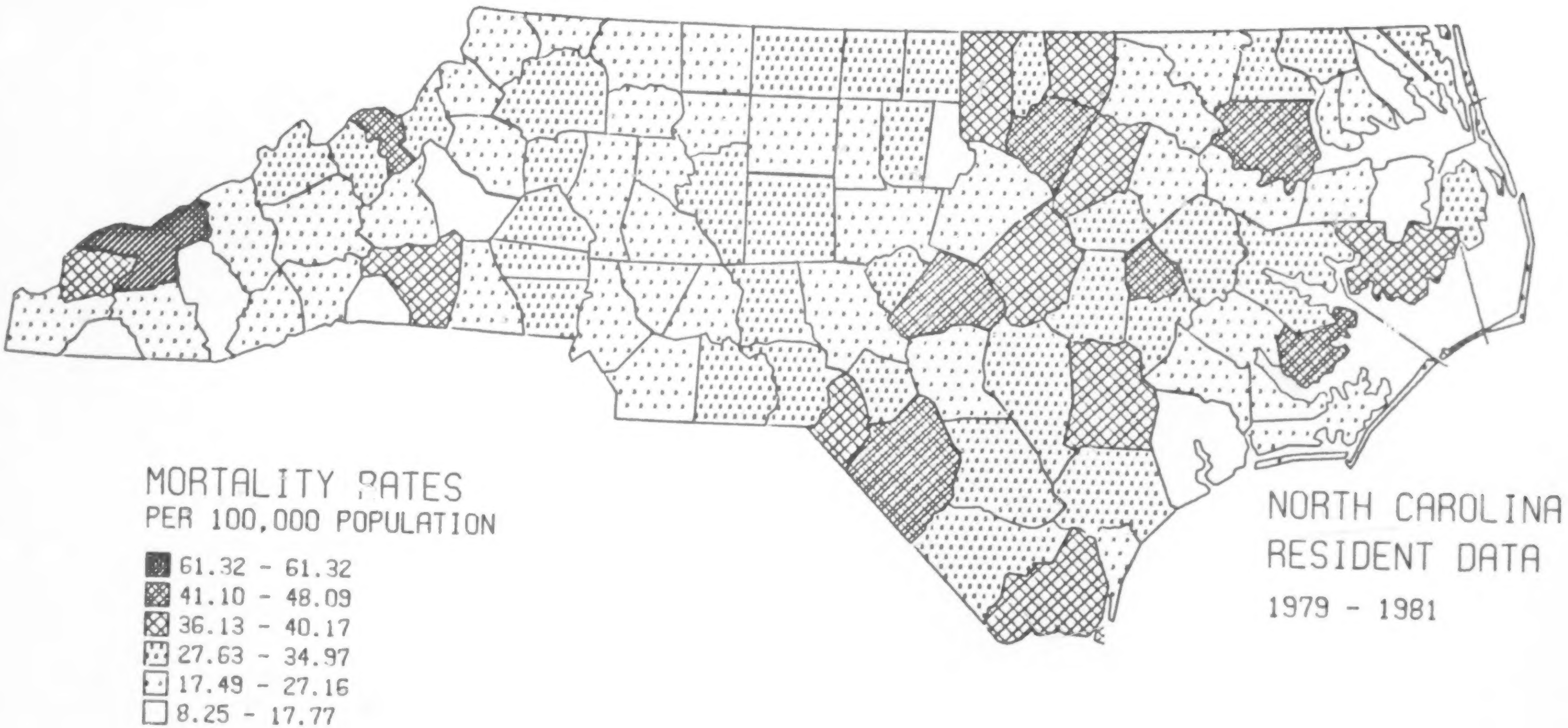
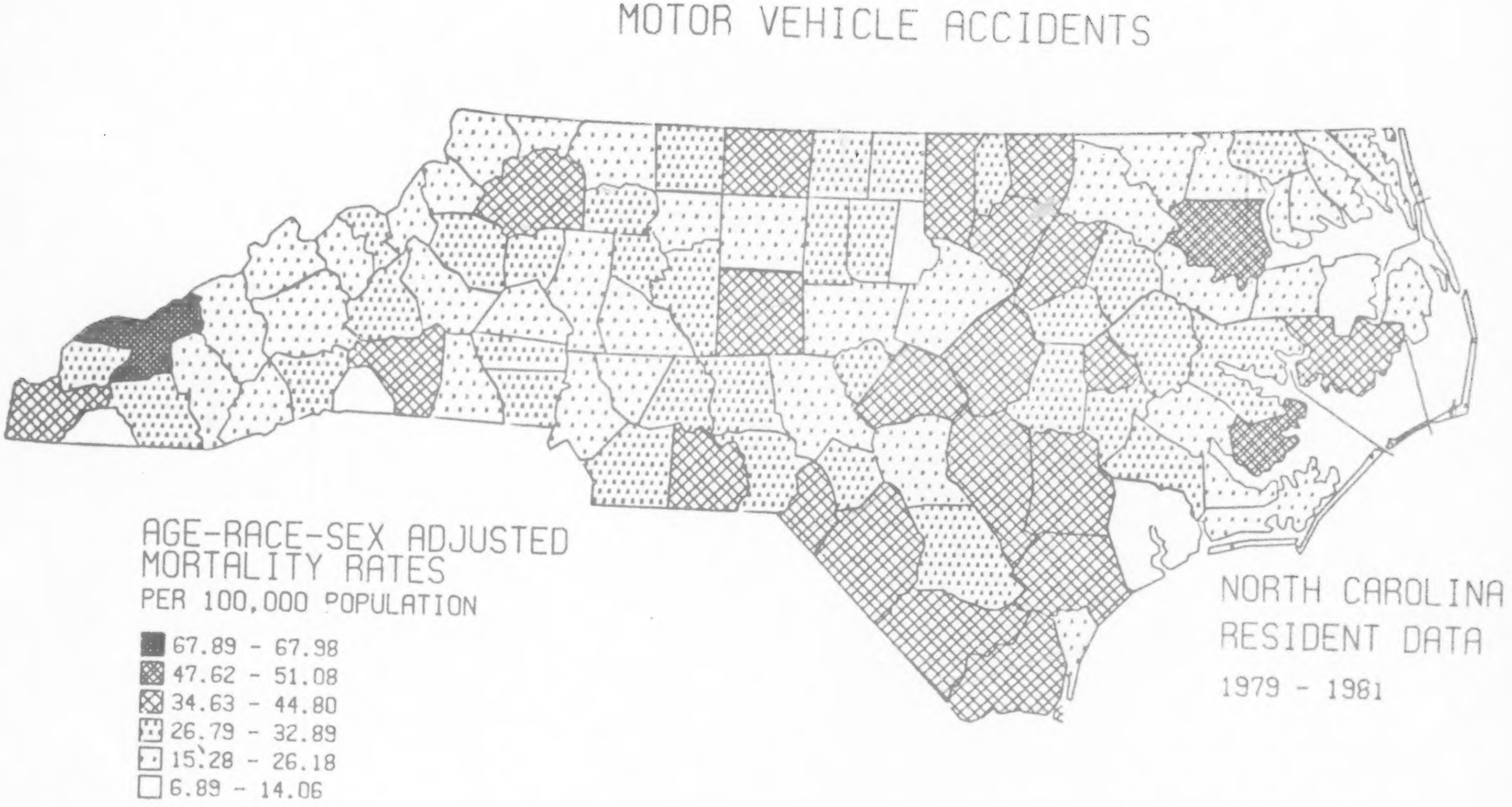

MORTALITY RATES
PER 100,000 POPULATION
■ 61.32 - 61.32
▩ 41.10 - 48.09
▨ 36.13 - 40.17
▦ 27.63 - 34.97
⬚ 17.49 - 27.16
☐ 8.25 - 17.77
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 24.A



MOTOR VEHICLE ACCIDENTS

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
67.89 - 67.98
47.62 - 51.08
34.63 - 44.80
26.79 - 32.89
15.28 - 26.18
6.89 - 14.06
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 24.B

ACCIDENTS EXCLUDING MOTOR VEHICLES

In 1981 a total of 1,470 fatal accidents, excluding motor vehicle accidents, occurred to residents of North Carolina. The resulting death rate was 24.7 per 100,000 population, down from the rates of 28.8 and 27.1 in 1976 and 1980 respectively, but still above the provisional U.S. rate of 21.7 in 1981. Taking into account the state's more youthful age structure via age-adjustment, nonmotor-vehicle mortality rates continue to be less favorable in North Carolina (21.4) than the United States as a whole (18.2). (2)

By type of accident, falls (268) were the leading cause of North Carolina's nonmotor-vehicle deaths in 1981. The resulting death rate was 4.5 per 100,000 population, 25 percent below the rate of 6.0 in 1976. Over 71 percent of all deaths from falls were to persons 65 years of age and over. Rates for the next four leading causes were: fires, 4.4; drownings, 2.9; poisoning by solid and liquid substances, 2.6; and surgical and medical complications and misadventures*, 1.8. With one exception, each of the latter four causes declined between 1976 and 1981. The exception--surgical and medical complications and misadventures--increased from 75 deaths in 1976 to 105 in 1981. Excluding 1980 when the number was 50, this increase has been steady each year.

Nonmotor-vehicle death rates in North Carolina are highest among nonwhites, males, and the elderly. By race and sex, the 1981 rates were 31.2 for white males, 14.2 for white females, 44.4 for nonwhite males, and 16.8 for nonwhite females. Despite the reductions in rates for each race-sex group between 1976 and 1981, male rates remained over twice the female rates for both races. For all race and sex groups, persons under 65 years of age tend to be at higher risk of dying from fires, drownings, and poisonings by solid and liquid substances than from other accidents. For persons 65 and over, falls, surgical and medical complications and misadventures, and fires are the leading causes of nonmotor-vehicle deaths.

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*ICD codes 870-876, 878-879.

Risk Factors

As with motor vehicle mortality, the use of alcohol is often a factor in nonmotor-vehicle accidents. In a 1975 New York study, 41% of the fall victims, 46% of the fire victims, and 53% of the drowning victims had alcohol concentrations of 0.10 percent or higher (6). Similar results for other causes have been reported (6). Of all 1981 nonmotor-vehicle deaths in North Carolina, 16 percent had an alcohol-related condition listed as a secondary cause on the death certificate. Alcohol-related conditions are known to be underreported as a secondary cause on death certificates; yet, these data and the results of known studies strongly suggest that efforts to reduce the use and abuse of alcohol are warranted.

Geographic Patterns

Figure 25.A shows that counties with high nonmotor-vehicle mortality rates are dispersed throughout the state. Only 14 counties have a level-four or higher rate. Adjusting for age, race, and sex does not appreciably alter the mortality patterns of nonmotor-vehicle accidents. Among all counties, Camden had the highest adjusted and unadjusted rates, which exceeded those of any other county by at least 25 percent, though the rates are based on less than 20 deaths in the numerator and therefore may be unstable.

While no significant spatial clusters were found, the counties of Hyde and Madison may have a chronic problem with respect to nonmotor-vehicle accidents since their high adjusted rates during 1979-81 correspond to excessive adjusted rates during 1974-78. Although not flagged in Table 25, the adjusted rate for Hyde County may not be an accurate statement of its "true" mortality since this rate was based on only 10 deaths in the 1979-81 period (see Section II on Flagging Biased Rates).

TABLE 25

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

ALL OTHER ACCIDENTS AND ADVERSE EFFECTS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	1470	24.66	4574	25.88	25.88
REGIONS					
DHR I WESTERN	493	24.12	1535	25.40	26.05
DHR II N. CENTRAL	322	25.27	928	24.50	24.46
DHR III S. CENTRAL	326	23.67	1046	25.65	25.92
DHR IV EASTERN	329	25.98	1065	28.28	27.67
HSA I WESTERN	263	25.48	841	27.51	28.41
HSA II PIEDMONT	271	24.06	774	23.12	23.61
HSA III S. PIEDMONT	230	22.74	694	23.23	24.10
HSA IV CAPITAL	193	23.23	610	24.81	24.80
HSA V CARDINAL	242	26.55	788	29.19	28.71
HSA VI EASTERN	271	25.83	867	27.74	27.04
COUNTIES					
1 ALAMANCE	18	18.05	62	20.79	20.18
2 ALEXANDER	11	43.06	26	34.48	39.21
3 ALLEGHANY	5	51.41	9	31.08	18.67
4 ANSON	4	15.62	24	31.32	27.35
5 ASHE	7	30.79	17	25.40	16.52
6 AVERY	2	13.52	9	20.67	15.43
7 BEAUFORT	10	24.16	38	31.10	29.34
8 BERTIE	8	37.69	28	44.25	43.72
9 BLADEN	15	48.78	36	39.36	36.33
10 BRUNSWICK	13	34.92	30	27.62	27.23
11 BUNCOMBE	43	26.58	130	26.91	25.68
12 BURKE	17	23.19	61	28.06	29.22
13 CABARRUS	21	23.90	66	25.55	27.73
14 CALDWELL	19	27.87	53	26.16	33.52
15 CAMDEN	10	176.08	17	98.14	102.86
16 CARTERET	11	25.64	32	25.54	28.61
17 CASWELL	6	28.55	18	28.96	27.99
18 CATAWBA	28	26.23	76	24.08	26.99
19 CHATHAM	10	29.41	22	21.79	18.41
20 CHEROKEE	3	15.61	16	28.16	20.14
21 CHOWAN	4	31.65	12	31.70	29.93
22 CLAY	1	14.37	8	39.76	23.24
23 CLEVELAND	17	20.27	68	27.21	28.45
24 COLUMBUS	16	30.79	63	40.91	39.70
25 CRAVEN	14	19.48	49	22.89	23.92
26 CUMBERLAND	53	21.10	154	20.70	23.87
27 CURRITUCK	7	61.89	13	38.36	42.91
28 DARE	5	34.57	11	26.95	25.86
29 DAVIDSON	38	33.43	81	23.93	29.82
30 DAVIE	3	11.30	13	17.19	15.31
31 DUPLIN	15	36.71	35	28.57	24.82
32 DURHAM	36	23.25	109	23.73	22.54
33 EDGECOMBE	15	26.72	49	29.09	27.51
34 FORSYTH	43	17.41	163	22.23	21.90
35 FRANKLIN	12	39.29	34	37.62	28.21
36 GASTON	44	26.79	128	26.28	29.27
37 GATES	3	33.44	6	22.67	19.82
38 GRAHAM	1	14.18	12	56.10	44.74
39 GRANVILLE	9	26.04	38	37.10	26.23
40 GREENE	3	18.65	12	25.09	31.50
41 GUILFORD	77	24.22	200	21.03	21.28

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
ALL OTHER ACCIDENTS AND ADVERSE EFFECTS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	16	28.86	48	28.87	25.31
43 HARNETT	15	24.85	48	26.74	27.09
44 HAYWOOD	12	25.57	38	27.19	19.75
45 HENDERSON	18	29.70	60	33.96	36.40
46 HERTFORD	5	21.26	21	29.88	19.58
47 HOKE	7	33.01	22	35.88	38.59
48 HYDE	2	33.33	10	55.90	58.47
49 IREDELL	21	24.95	56	22.51	22.30
50 JACKSON	5	18.89	16	20.64	24.33
51 JOHNSTON	13	18.09	67	31.47	32.30
52 JONES	3	30.90	9	31.02	35.63
53 LEE	5	13.48	23	20.95	21.45
54 LENOIR	13	21.66	56	31.24	30.97
55 LINCOLN	5	11.65	32	25.26	27.37
56 MCDOWELL	13	36.24	29	27.53	24.46
57 MACON	5	23.58	17	27.55	36.81
58 MADISON	6	34.24	20	39.31	82.58
59 MARTIN	10	37.94	29	37.06	36.47
60 MECKLENBURG	100	24.29	264	21.76	22.77
61 MITCHELL	2	13.77	10	23.05	67.63*
62 MONTGOMERY	6	26.42	18	26.88	25.88
63 MOORE	10	19.49	43	28.39	27.30
64 NASH	15	21.93	63	31.07	31.07
65 NEW HANOVER	26	24.62	80	25.70	26.26
66 NORTHAMPTON	1	4.44	14	20.62	13.54
67 ONSLOW	25	22.03	58	17.07	26.26
68 ORANGE	15	19.36	42	18.18	20.80
69 PAMLICO	2	19.16	12	38.76	31.21
70 PASQUOTANK	13	45.72	29	34.06	30.90
71 PENDER	3	13.32	25	37.56	37.45
72 PERQUIMANS	1	10.39	6	20.94	17.23
73 PERSON	3	10.17	27	30.84	29.56
74 PITT	21	22.79	75	27.63	27.78
75 POLK	3	22.36	17	43.44	36.11
76 RANDOLPH	15	16.11	56	20.37	24.79
77 RICHMOND	12	26.17	40	29.35	28.08
78 ROBESON	24	23.32	100	32.73	28.44
79 ROCKINGHAM	34	40.17	87	34.68	34.55
80 ROWAN	22	21.94	71	23.86	22.38
81 RUTHERFORD	19	34.83	56	34.63	35.07
82 SAMPSON	22	44.11	66	44.39	39.32
83 SCOTLAND	16	49.14	39	40.17	39.00
84 STANLY	10	20.73	42	29.06	28.38
85 STOKES	8	23.49	25	25.09	31.41
86 SURRY	20	33.39	46	25.83	30.89
87 SWAIN	2	19.30	9	29.04	23.81
88 TRANSYLVANIA	7	29.32	14	19.83	15.25
89 TYRRELL	3	72.58	4	33.01	15.97
90 UNION	7	9.71	35	16.58	17.30
91 VANCE	17	46.19	36	32.71	29.22
92 WAKE	63	20.47	193	21.32	24.80
93 WARREN	10	61.51	19	38.83	26.78
94 WASHINGTON	2	13.61	12	27.01	21.38
95 WATAUGA	2	6.12	18	18.81	16.43
96 WAYNE	17	17.44	62	21.24	20.95
97 WILKES	13	21.96	42	23.74	24.16
98 WILSON	17	26.86	57	30.18	29.57
99 YADKIN	9	31.01	23	26.82	35.15
100 YANCEY	2	13.32	10	22.26	14.61

* SEE SECTION II

ALL OTHER ACCIDENTS & ADVERSE EFFECTS

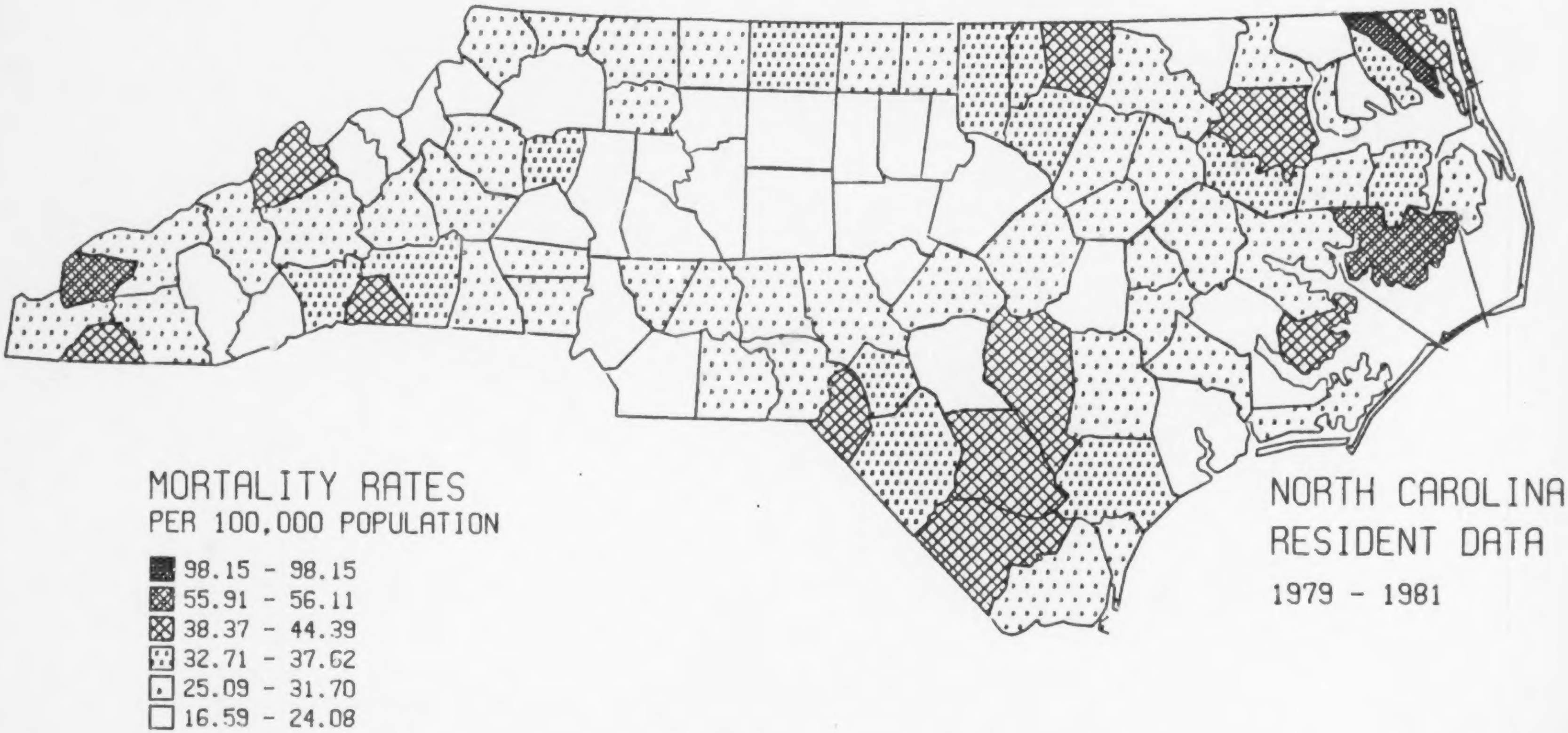

NORTH CAROLINA
RESIDENT DATA
1979 - 1981
MORTALITY RATES
PER 100,000 POPULATION
■ 98.15 - 98.15
▩ 55.91 - 56.11
⊠ 38.37 - 44.39
▦ 32.71 - 37.62
⊡ 25.09 - 31.70
☐ 16.59 - 24.08

FIGURE 25.A

ALL OTHER ACCIDENTS & ADVERSE EFFECTS

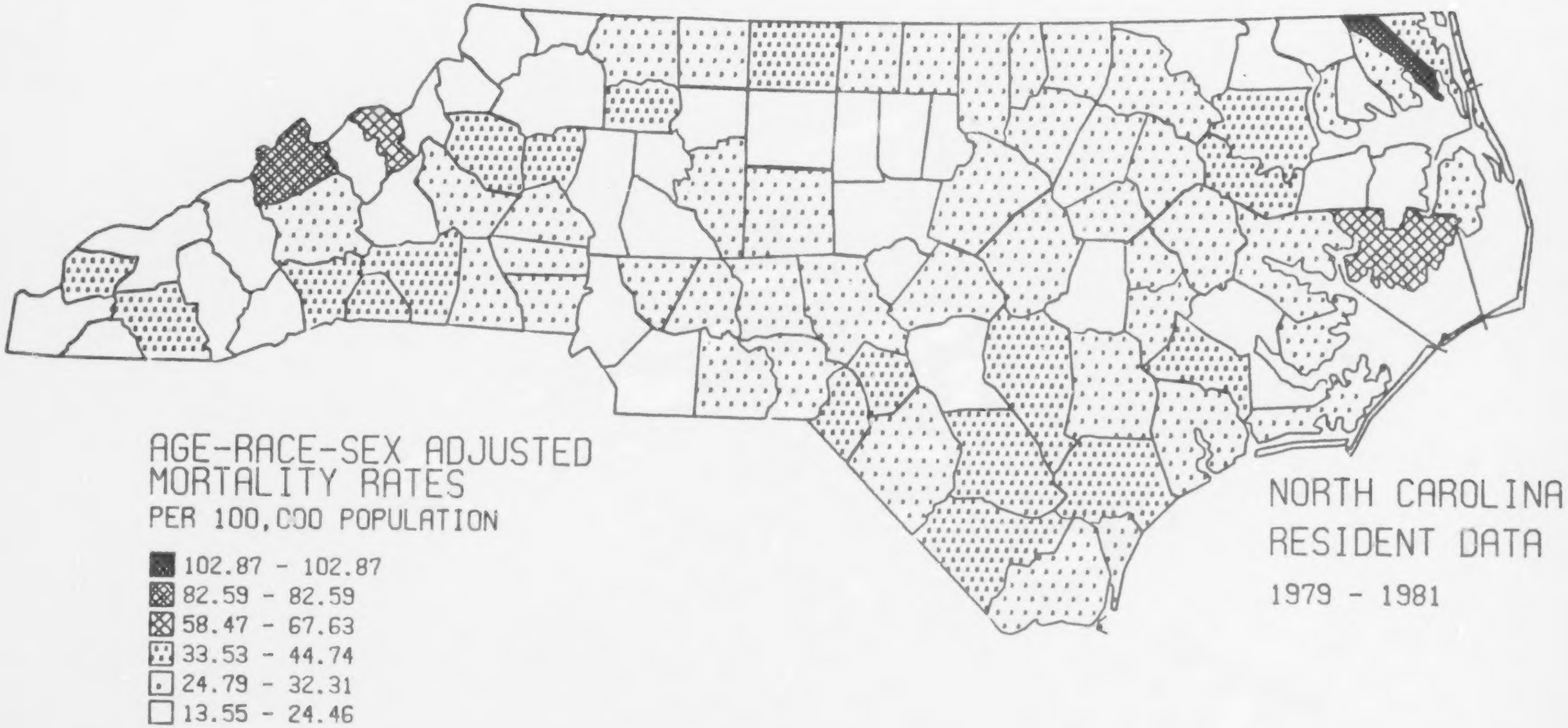

AGE-RACE-SEX ADJUSTED MORTALITY RATES
PER 100,000 POPULATION
■ 102.87 - 102.87
▩ 82.59 - 82.59
⊠ 58.47 - 67.63
⁙ 33.53 - 44.74
⊡ 24.79 - 32.31
□ 13.55 - 24.46
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 25.B

SUICIDE

Since 1973 the number of suicide deaths in the United States has consistently exceeded 20,000 recorded cases per year with the 1981 provisional total reaching 28,100 or 1.4 percent of all deaths (2). In North Carolina, the number has exceeded 635 deaths during this period, with the 1981 total reaching 766 or 1.6 percent of all N.C. deaths. The annual provisional data for N.C. deaths show that a comparable number of residents (770) committed suicide in 1982.

Suicide was the twelfth leading cause of death in North Carolina in 1973 but was eighth in 1981. However, this is not due to an increasing suicide rate; in fact, North Carolinians are killing themselves at about the same rate in 1981 (12.9 deaths per 100,000 population) as in 1973 (13.0). Rather the suicide rate has stabilized while mortality from most other causes has declined. The provisional U.S. rate in 1981 was 12.3.

Yet the importance of suicide as a leading cause is illustrated not so much by its rank as by its contribution to premature mortality in N.C. While suicide was the eighth leading cause of death in 1981 based on the number of deaths, it was the fourth leading cause in terms of years of life lost, indicating that relative to most causes of death, suicide is occurring more frequently among younger persons. In fact, 35.5 percent of all suicide decedents in 1981 were less than 35 years of age and 84.7 percent were less than 65.

Suicide rates differ markedly among the four race-sex groups with white males still accounting for a preponderance of North Carolina's suicides. Death rates for the race-sex groups in 1981 were 23.1 for white males, 9.4 for nonwhite males, 7.5 for white females, and 2.5 for nonwhite females. While the white rate (15.1) was higher than the nonwhite rate (5.8), the percentage of suicide victims that were under age 35 was greater for nonwhites (48%) than for whites (34%).

Trends for the race-sex groups represent both good news and bad. Comparing age-adjusted rates for the 1974-78 and 1979-81 periods, the overall risk of suicide declined by 6.7 percent, and the male and female rates for whites decreased 8.9 percent each. Unfortunately, however, the male and female rates for nonwhites rose 10.3 and 18.5 percent, respectively, during this same time period.

Over 73 percent of North Carolina suicides during 1981 were committed through the use of firearms and explosives. As in the 1976 Leading Causes of Mortality, suicides have been divided into subgroupings of "active" versus "passive" methods. Active methods include hanging, strangulation, suffocation, drowning, firearms, explosives, cutting, and jumping from high places. Passive methods include suicide from poisoning by solid and liquid substances and gases.

Differences between sexes and races in suicidal actions are obvious from the following table showing the percentage active and passive methods utilized in North Carolina suicides. Suicidal males show a stronger tendency towards active methods of self-destruction while females show a greater and an increasing tendency towards passive methods. Also, nonwhites tend to use active methods of suicide more often than whites, but in both groups a tendency towards passive methods is increasing for females.

	1960 Percent		1970 Percent		1976 Percent		1981 Percent	
	Active	Passive	Active	Passive	Active	Passive	Active	Passive
Total	90	10	87	13	84	16	85	15
Male	91	9	90	10	88	12	92	8
Female	89	11	76	24	72	28	64	36
White	90	10	86	14	84	16	84	16
Male	90	10	89	11	87	13	91	9
Female	89	11	75	25	72	28	64	36
Nonwhite	98	2	92	8	89	11	88	12
Male	97	3	97	3	93	7	95	5
Female	100	0	80	20	75	25	63	37

Geographic Patterns

Unadjusted and age-race-sex-adjusted county death rates for 1979-81 are mapped in Figures 26.A and 26.B, respectively. Figure 26.A shows 12 counties with high rates--Ashe, Alleghany, Camden, Clay, Currituck, Johnston, Pamlico, Person, Swain, Warren, Watauga, and Wilson. After adjusting for age, race, and sex differences, each of these counties except Clay also had a level-5 or higher rate (Figure 26.B). Many of these rates do, however, have a small number of deaths in the numerator and may therefore be unreliable.

Procedures described in Section II of this report were used to examine whether the contiguous counties with high unadjusted rates are clustering geographically. The map below shows that two significant geographic clusters exist: one in the northeast involving Currituck and Camden counties and a second in the northwest involving Alleghany, Ashe, and Watauga counties. The chances of these two clusters occurring randomly is about 3 out of 100. But, when age, race, and sex are taken into account, these 5 counties are still ranked among counties with the highest rates, but no significant spatial cluster exists according to this method. In four of the five counties, however, the number of deaths is less than 20, and so conclusions about suicide in these counties should be made tentatively.

SUICIDE

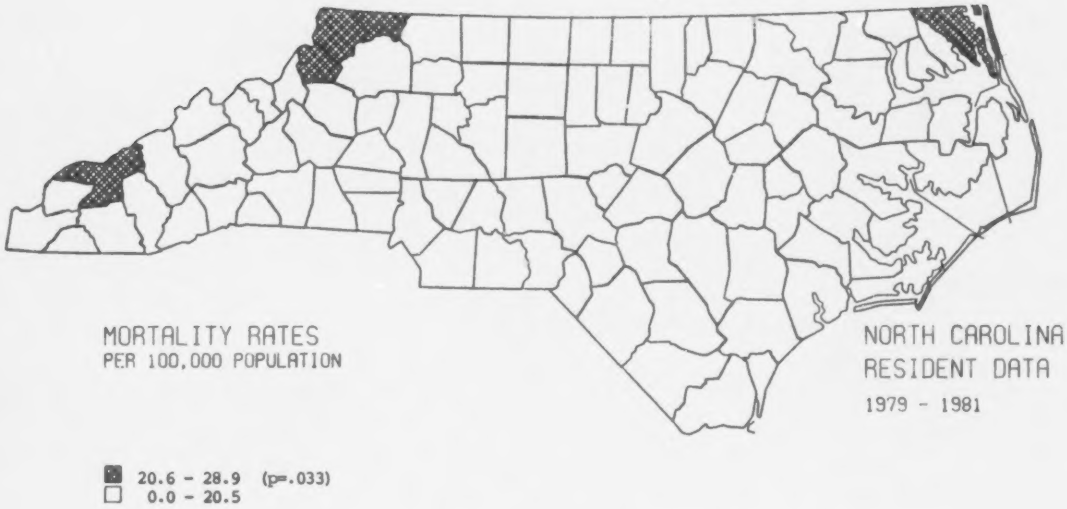

MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
▨ 20.6 - 28.9 (p=.033)
☐ 0.0 - 20.5

TABLE 26

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

SUICIDE

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	766	12.85	2126	12.03	12.03
REGIONS					
DHR I WESTERN	264	12.92	756	12.51	11.65
DHR II N. CENTRAL	180	14.12	516	13.62	12.30
DHR III S. CENTRAL	161	11.69	435	10.66	11.46
DHR IV EASTERN	161	12.71	419	11.12	11.99
HSA I WESTERN	137	13.27	389	12.72	11.46
HSA II PIEDMONT	164	14.56	452	13.50	12.96
HSA III S. PIEDMONT	127	12.55	367	12.28	12.04
HSA IV CAPITAL	97	11.67	290	11.79	12.33
HSA V CARDINAL	114	12.50	290	10.74	11.77
HSA VI EASTERN	127	12.10	338	10.81	11.81
COUNTIES					
1 ALAMANCE	22	22.07	44	14.75	13.98
2 ALEXANDER	8	31.31	12	15.91	13.71
3 ALLEGHANY	1	10.28	8	27.63	18.53
4 ANSON	1	3.90	3	3.91	4.58
5 ASHE	4	17.59	17	25.40	20.49
6 AVERY	0	0.00	3	6.89	5.39
7 BEAUFORT	4	9.66	12	9.82	10.94
8 BERTIE	3	14.13	8	12.64	16.59
9 BLADEN	1	3.25	10	10.93	13.03
10 BRUNSWICK	7	18.80	13	11.97	11.44
11 BUNCOMBE	19	11.74	60	12.42	11.01
12 BURKE	10	13.64	18	8.28	6.84
13 CABARRUS	10	11.38	31	12.00	10.78
14 CALDWELL	16	23.47	34	16.78	13.54
15 CAMDEN	3	52.82	5	28.86	26.98
16 CARTERET	4	9.32	10	7.98	6.56
17 CASWELL	1	4.75	5	8.04	10.44
18 CATAWBA	11	10.30	35	11.09	10.57
19 CHATHAM	4	11.76	12	11.89	11.62
20 CHEROKEE	2	10.40	6	10.56	8.50
21 CHOWAN	0	0.00	2	5.28	4.43
22 CLAY	0	0.00	4	19.88	16.68
23 CLEVELAND	10	11.92	32	12.80	12.73
24 COLUMBUS	9	17.32	23	14.93	16.13
25 CRAVEN	12	16.70	21	9.81	10.93
26 CUMBERLAND	46	18.31	87	11.69	14.02
27 CURRITUCK	3	26.52	7	20.65	18.30
28 DARE	2	13.83	4	9.80	7.15
29 DAVIDSON	10	8.79	41	12.11	11.05
30 DAVIE	7	26.38	12	15.87	13.23
31 DUPLIN	5	12.23	9	7.34	6.92
32 DURHAM	15	9.69	39	8.49	9.38
33 EDGECOMBE	8	14.25	13	7.71	11.35
34 FORSYTH	33	13.36	101	13.77	13.76
35 FRANKLIN	3	9.82	12	13.27	14.57
36 GASTON	23	14.00	67	13.75	13.80
37 GATES	1	11.14	4	15.11	30.25
38 GRAHAM	0	0.00	3	14.02	12.19
39 GRANVILLE	4	11.57	13	12.69	13.38
40 GREENE	0	0.00	3	6.27	8.08
41 GUILFORD	44	13.84	122	12.83	12.96

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
SUICIDE CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	2	3,60	11	6.61	5.87
43 HARNETT	5	8,28	22	12,25	12.69
44 HAYWOOD	6	12,78	16	11,45	8.51
45 HENDERSON	3	4,95	17	9,62	8.12
46 HERTFORD	0	0,00	5	7,11	6.60
47 HOKE	3	14,14	6	9,78	10.81
48 HYDE	1	16,66	2	11.18	9.99
49 IREDELL	12	14,25	28	11,25	10.59
50 JACKSON	3	11,33	10	12,90	11.71
51 JOHNSTON	17	23,66	39	18,32	17.73
52 JONES	1	10,30	3	10,34	12.70
53 LEE	3	8,08	9	8,19	8.29
54 LENOIR	8	13,33	29	16,18	17.62
55 LINCOLN	6	13,98	14	11,05	11.00
56 MCDOWELL	1	2,78	11	10,44	8.29
57 MACON	3	14,14	8	12,96	22.78
58 MADISON	3	17,12	5	9,82	6.87
59 MARTIN	2	7.58	6	7.66	10.00
60 MECKLENBURG	46	11,17	134	11,04	11.53
61 MITCHELL	3	20,66	6	13,83	9.61
62 MONTGOMERY	4	17,61	11	16,42	16.32
63 MOORE	3	5,84	11	7,26	6.23
64 NASH	8	11,69	26	12,82	13.77
65 NEW HANOVER	15	14,20	36	11,56	11.53
66 NORTHAMPTON	2	8,89	7	10,31	10.50
67 ONSLOW	13	11,45	30	8,83	10.99
68 ORANGE	4	5,16	15	6,49	7.53
69 PAMLICO	5	47,92	6	19,38	19.10
70 PASQUOTANK	3	10.55	10	11,74	12.34
71 PENDER	3	13,32	9	13,52	15.29
72 PERQUIMANS	0	0.00	0	0,00	0.00
73 PERSON	3	10.17	17	19,42	20.06
74 PITT	9	9.76	28	10,31	11.10
75 POLK	5	37,26	6	15,33	12.72
76 RANDOLPH	13	13,96	36	13,09	12.87
77 RICHMOND	3	6.54	11	8,07	8.13
78 ROBESON	8	7.77	23	7,52	7.48
79 ROCKINGHAM	11	12,99	36	14,35	14.29
80 ROWAN	16	15,96	43	14,45	13.32
81 RUTHERFORD	7	12.83	15	9,27	8.97
82 SAMPSON	5	10.02	21	14,12	15.66
83 SCOTLAND	1	3.07	4	4,12	4.77
84 STANLY	10	20.73	18	12,45	11.23
85 STOKES	7	20.55	16	16,05	13.92
86 SURRY	12	20.03	29	16,29	13.12
87 SWAIN	1	9.65	7	22,59	24.78
88 TRANSYLVANIA	2	8.37	6	8,50	6.88
89 TYRRELL	0	0.00	1	8,25	8.19
90 UNION	4	5.55	32	15,16	15.28
91 VANCE	4	10.86	13	11,81	14.58
92 WAKE	38	12,34	112	12,37	12.97
93 WARREN	2	12,30	9	18,39	22.91
94 WASHINGTON	1	6.80	5	11,25	15.24
95 WATAUGA	6	18,36	20	20,90	17.89
96 WAYNE	16	16,41	36	12,33	14.39
97 WILKES	11	18,58	27	15,26	14.31
98 WILSON	11	17,38	35	18,53	19.75
99 YADKIN	4	13,78	10	11,66	8.89
100 YANCEY	2	13,32	3	6,68	5.45

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

SUICIDE

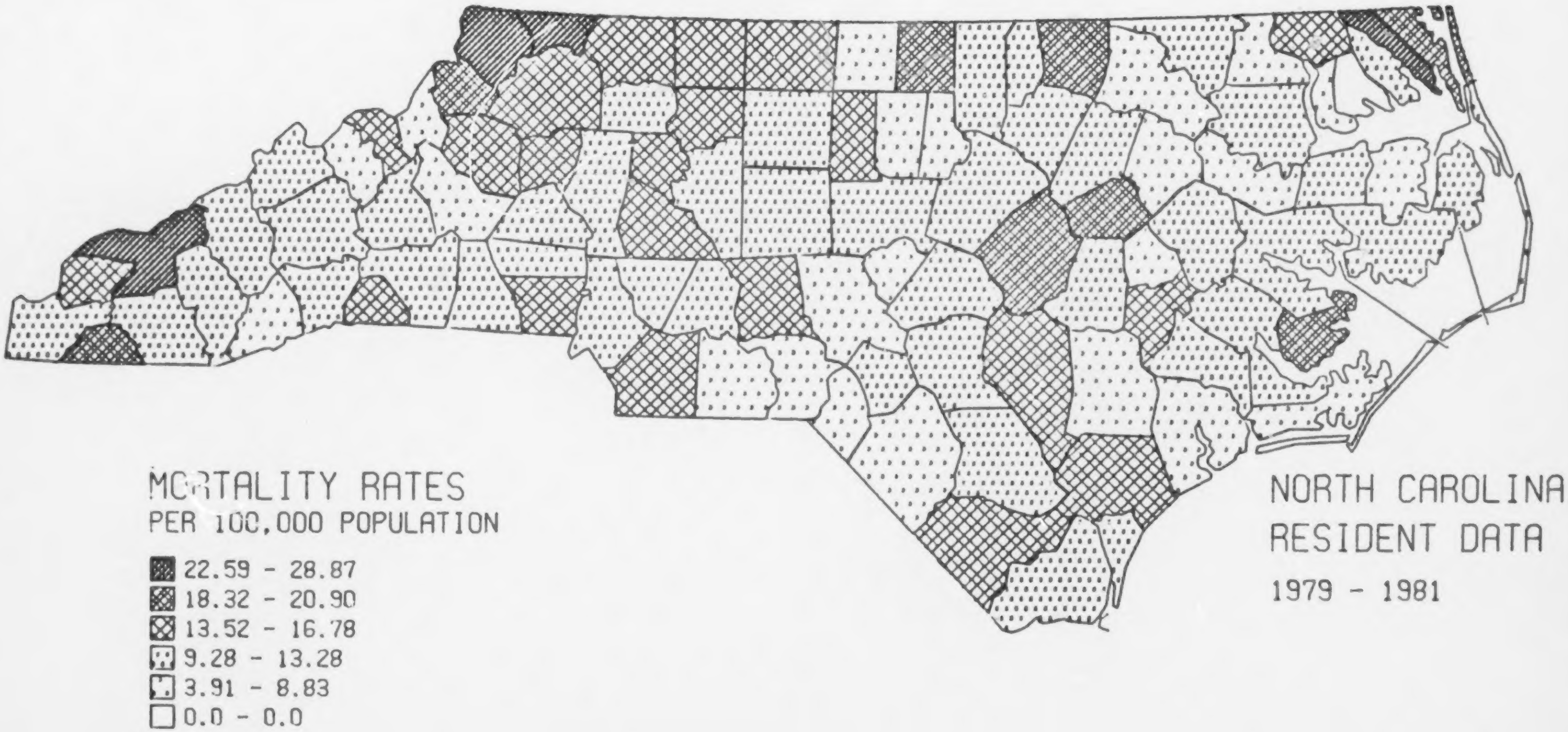

MORTALITY RATES
PER 100,000 POPULATION
22.59 - 28.87
18.32 - 20.90
13.52 - 16.78
9.28 - 13.28
3.91 - 8.83
0.0 - 0.0
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 26.A

SUICIDE

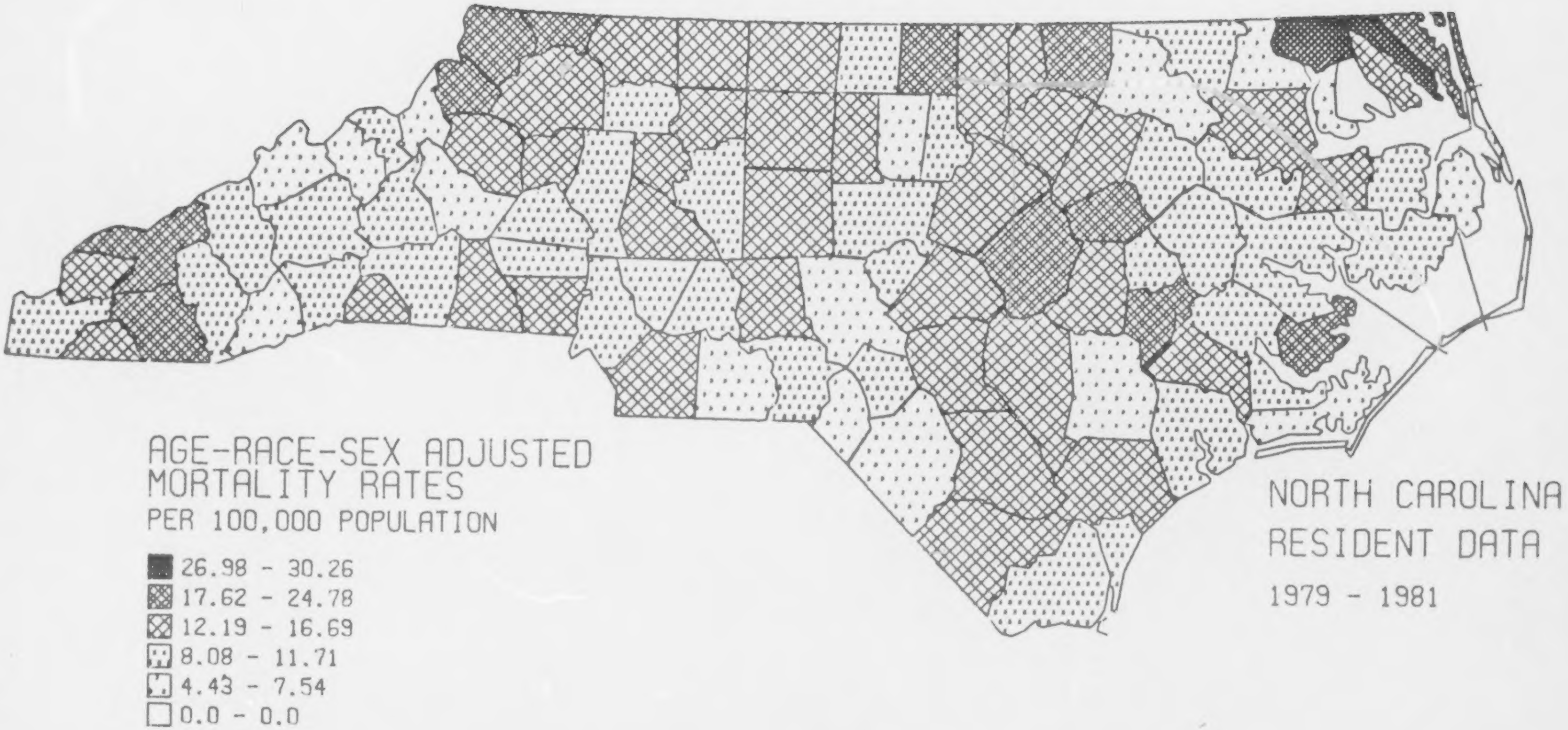

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
26.98 - 30.26
17.62 - 24.78
12.19 - 16.69
8.08 - 11.71
4.43 - 7.54
0.0 - 0.0
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 26.B

HOMICIDE

Following an increase of more than 34 percent between 1960 and 1976, North Carolina's homicide rate dropped 14 percent between 1976 and 1981 to 10.5 deaths per 100,000 population. As shown by the age-adjusted rates, the risk of mortality is about the same in North Carolina (10.7) as in the United States (10.8). The U.S. rate is provisional. (2)

Characteristics of North Carolina's 1981 homicide victims were as follows: 76% were male, 52% were nonwhite, 85% were under age 55, and 70% died from assault by firearms and explosives. The main differences between 1976 and 1981 were that a smaller percentage of victims in 1981 were nonwhite or died from assault by firearms and explosives. North Carolinians aged 25-34 were the most likely homicide victims in 1981.

The 1981 rates for the race-sex groups were 10.3 for white males, 3.3 for white females, 36.2 for nonwhite males, and 9.6 for nonwhite females. These rates were lower than the 1976 rates for each group except white females whose rate rose nearly 14 percent from 2.9 in 1976. However, taking into consideration differences in age structure via age-adjustment, the risk of homicide has remained constant for white females but has declined for the other race-sex groups. Nonwhite males and nonwhite females experienced the largest percent declines, about 22 percent and 31 percent respectively.

Despite these declines, excessive homicide mortality among nonwhite males still remains an important public health problem. Nonwhite males comprised 40 percent of all homicide deaths in 1981; yet, this group represents less than 12 percent of the total North Carolina population. In comparison, white males, who comprised 37 percent of the total population, constituted 36 percent of the homicide victims. Moreover, for each age group between ages 25 and 84 in 1981, the homicide rate for nonwhites was fourfold that of any other race-sex group. The rate for nonwhite males 15-24 was twofold and those 0-14 and 85+ had about the same risk as other race-sex groups. In any event, preventive measures directed primarily at males and in particular at nonwhite males are needed to deter homicidal activity. This cause of death is an even more serious problem when looked at in terms of years of life lost (see "Overview" section), since homicide victims tend to die at a relatively young age.

Geographic Patterns

In Figure 27.A, high homicide rates (levels 4-6) exist throughout the northcentral and southcentral portions of the state. These high rates, however, are due largely to age, race, and sex differences as adjustment for these factors changes the mortality picture. As shown in Figure 27.B, the high rates are more dispersed throughout the state after adjustment, although small pockets of contiguous counties with high rates continue to exist. When these high-rate counties in both maps were tested for geographic clustering, no statistically significant spatial clusters were found.

TABLE 27

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

HOMICIDE

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	626	10.50	1962	11.10	11.10
REGIONS					
DHR I WESTERN	205	10.03	635	10.50	13.15
DHR II N. CENTRAL	122	9.57	389	10.27	10.56
DHR III S. CENTRAL	161	11.69	533	13.07	11.61
DHR IV EASTERN	138	10.89	405	10.75	9.41
HSA I WESTERN	95	9.20	267	8.73	12.44
HSA II PIEDMONT	101	8.96	321	9.59	10.25
HSA III S. PIEDMONT	110	10.87	368	12.32	13.48
HSA IV CAPITAL	87	10.47	292	11.87	10.85
HSA V CARDINAL	115	12.61	370	13.70	12.02
HSA VI EASTERN	118	11.24	344	11.01	9.50
COUNTIES					
1 ALAMANCE	16	16.05	46	15.42	16.48
2 ALEXANDER	3	11.74	7	9.28	7.29
3 ALLEGHANY	1	10.28	2	6.90	6.08
4 ANSON	3	11.71	9	11.74	11.42
5 ASHE	1	4.39	4	5.97	4.98
6 AVERY	1	6.76	4	9.18	7.42
7 BEAUFORT	6	14.49	18	14.73	12.34
8 BERTIE	1	4.71	9	14.22	12.31
9 BLADEN	8	26.01	21	22.96	17.19
10 BRUNSWICK	2	5.37	6	5.52	6.02
11 BUNCOMBE	16	9.89	47	9.73	10.87
12 BURKE	9	12.28	20	9.20	9.80
13 CABARRUS	9	10.24	27	10.45	13.37
14 CALDWELL	4	5.86	22	10.86	16.12
15 CAMDEN	0	0.00	0	0.00	0.00
16 CARTERET	3	6.99	8	6.38	11.89
17 CASWELL	2	9.51	7	11.26	7.38
18 CATAWBA	12	11.24	34	10.77	15.93
19 CHATHAM	5	14.70	16	15.85	14.26
20 CHEROKEE	2	10.40	3	5.28	4.21
21 CHOWAN	3	23.73	5	13.20	12.66
22 CLAY	0	0.00	3	14.91	126.35*
23 CLEVELAND	9	10.73	27	10.80	11.98
24 COLUMBUS	5	9.62	24	15.58	13.70
25 CRAVEN	5	6.96	23	10.74	10.70
26 CUMBERLAND	26	10.35	103	13.84	11.85
27 CURRITUCK	4	35.36	5	14.75	17.07
28 DARE	0	0.00	1	2.45	2.15
29 DAVIDSON	7	6.15	31	9.15	11.49
30 DAVIE	1	3.76	4	5.29	6.20
31 DUPLIN	4	9.79	11	8.98	7.03
32 DURHAM	13	8.39	62	13.49	11.48
33 EDGECOMBE	10	17.81	28	16.62	11.07
34 FORSYTH	24	9.72	62	8.45	8.32
35 FRANKLIN	4	13.09	21	23.23	18.45
36 GASTON	16	9.74	66	13.55	17.29
37 GATES	0	0.00	0	0.00	0.00
38 GRAHAM	0	0.00	0	0.00	0.00
39 GRANVILLE	2	5.78	11	10.74	9.37
40 GREENE	1	6.21	6	12.54	9.78
41 GUILFORD	25	7.86	98	10.30	10.06

* SEE SECTION II

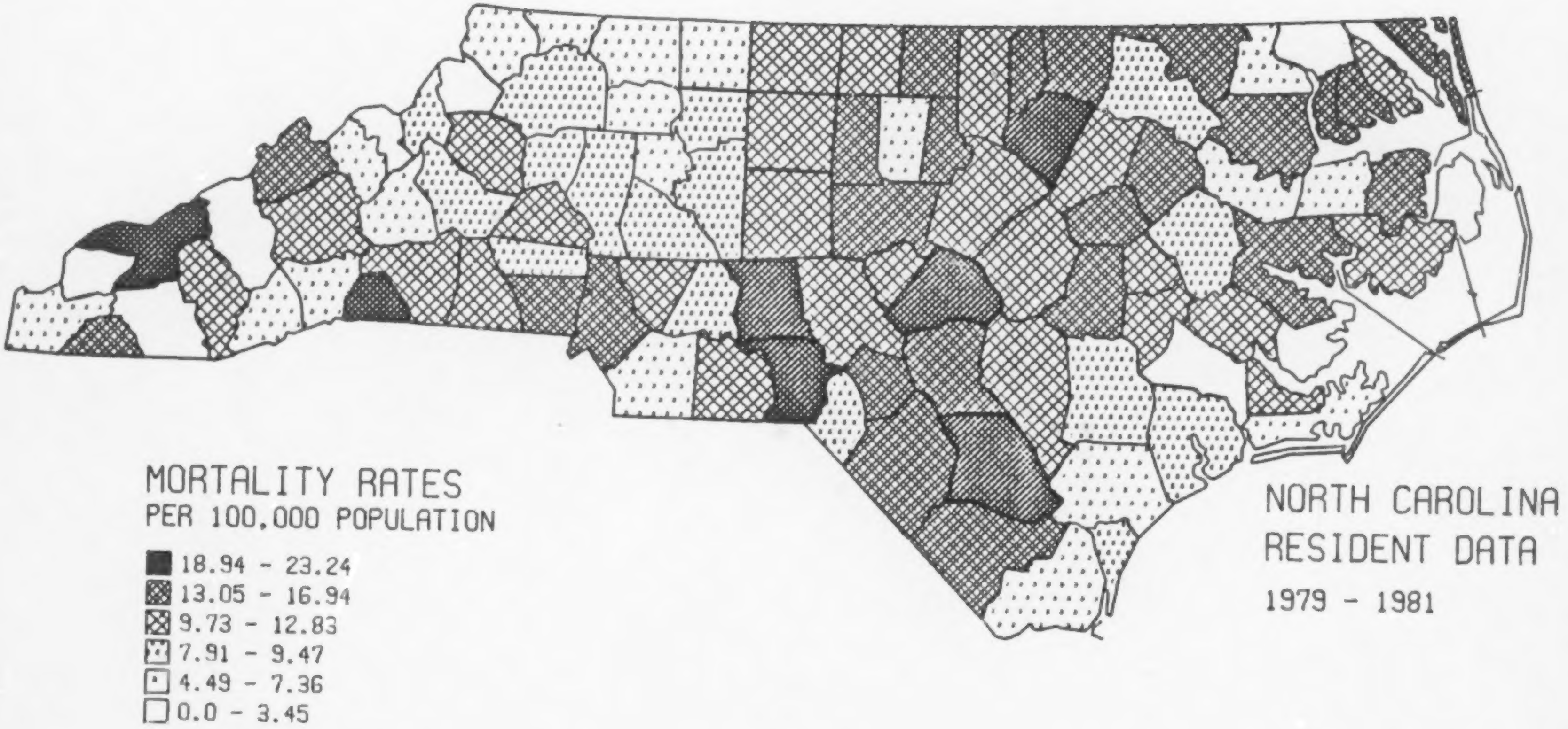
MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
HOMICIDE CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	5	9.02	14	8.42	5.78
43 HARNETT	13	21.53	34	18.94	19.63
44 HAYWOOD	1	2.13	4	2.86	2.26
45 HENDERSON	6	9.90	11	6.22	19.90
46 HERTFORD	0	0.00	5	7.11	4.85
47 HOKE	3	14,14	8	13,05	7.90
48 HYDE	2	33,33	2	11,18	8.55
49 IREDELL	8	9.50	21	8.44	10.48
50 JACKSON	4	15,11	8	10,32	12.36
51 JOHNSTON	10	13,91	25	11,74	12.95
52 JONES	0	0.00	1	3,44	2.48
53 LEE	6	16,17	14	12,75	13.51
54 LENOIR	9	14,99	23	12,83	10.36
55 LINCOLN	2	4.66	12	9,47	9.22
56 MCDOWELL	2	5.57	5	4,74	7.41
57 MACON	0	0.00	1	1,62	1.23
58 MADISON	4	22,82	8	15,72	12.56
59 MARTIN	1	3.79	5	6,39	5.79
60 MECKLENBURG	58	14,08	187	15,41	14.18
61 MITCHELL	1	6,88	1	2,30	1.80
62 MONTGOMERY	3	13.21	15	22,40	22.88
63 MOORE	4	7.79	18	11,88	12.90
64 NASH	11	16.08	26	12,82	12.27
65 NEW HANOVER	13	12,31	28	8,99	9.38
66 NORTHAMPTON	0	0.00	9	13,26	10.60
67 ONSLOW	11	9.69	30	8,83	8.10
68 ORANGE	5	6,45	17	7,36	8.39
69 PAMLICO	0	0.00	0	0.00	0.00
70 PASQUOTANK	3	10.55	9	10,57	10.36
71 PENDER	0	0.00	3	4,50	5.20
72 PERQUIMANS	1	10,39	4	13,96	14.52
73 PERSON	4	13,56	12	13,70	11.42
74 PITT	9	9.76	25	9,21	7.60
75 POLK	3	22.36	8	20,44	25.48
76 RANDOLPH	11	11.81	28	10,18	15.60
77 RICHMOND	5	10,90	27	19,81	19.71
78 ROBESON	18	17.49	48	15,71	10.42
79 ROCKINGHAM	10	11.81	27	10,76	11.74
80 ROWAN	6	5.98	28	9,41	10.42
81 RUTHERFORD	5	9.16	17	10,51	15.31
82 SAMPSON	8	16.04	18	12,10	10.86
83 SCOTLAND	4	12,28	8	8,24	7.41
84 STANLY	4	8,29	12	8,30	9.62
85 STOKES	1	2,93	6	6,02	10.46
86 SURRY	2	3,33	8	4,49	7.74
87 SWAIN	3	28,95	6	19,36	20.33
88 TRANSYLVANIA	2	8,37	5	7,08	5.87
89 TYRRELL	0	0.00	2	16,50	14.68
90 UNION	7	9.71	15	7.10	8.58
91 VANCE	7	19.02	17	15,44	13.87
92 WAKE	27	8.77	90	9.94	9.63
93 WARREN	4	24,60	7	14,30	7.29
94 WASHINGTON	1	6,80	3	6,75	3.83
95 WATAUGA	0	0.00	3	3,13	1.85
96 WAYNE	15	15.39	40	13,70	11.67
97 WILKES	5	8,44	14	7,91	12.91
98 WILSON	13	20,54	32	16,94	17.17
99 YADKIN	2	6,89	4	4,66	3.85
100 YANCEY	1	6,66	3	6,68	4.60

* SEE SECTION II

STATE CENTER FOR HEALTH STATISTICS
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

HOMICIDE



MORTALITY RATES
PER 100,000 POPULATION
■ 18.94 - 23.24
▩ 13.05 - 16.94
▨ 9.73 - 12.83
⁙ 7.91 - 9.47
· 4.49 - 7.36
☐ 0.0 - 3.45

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 27.A

HOMICIDE

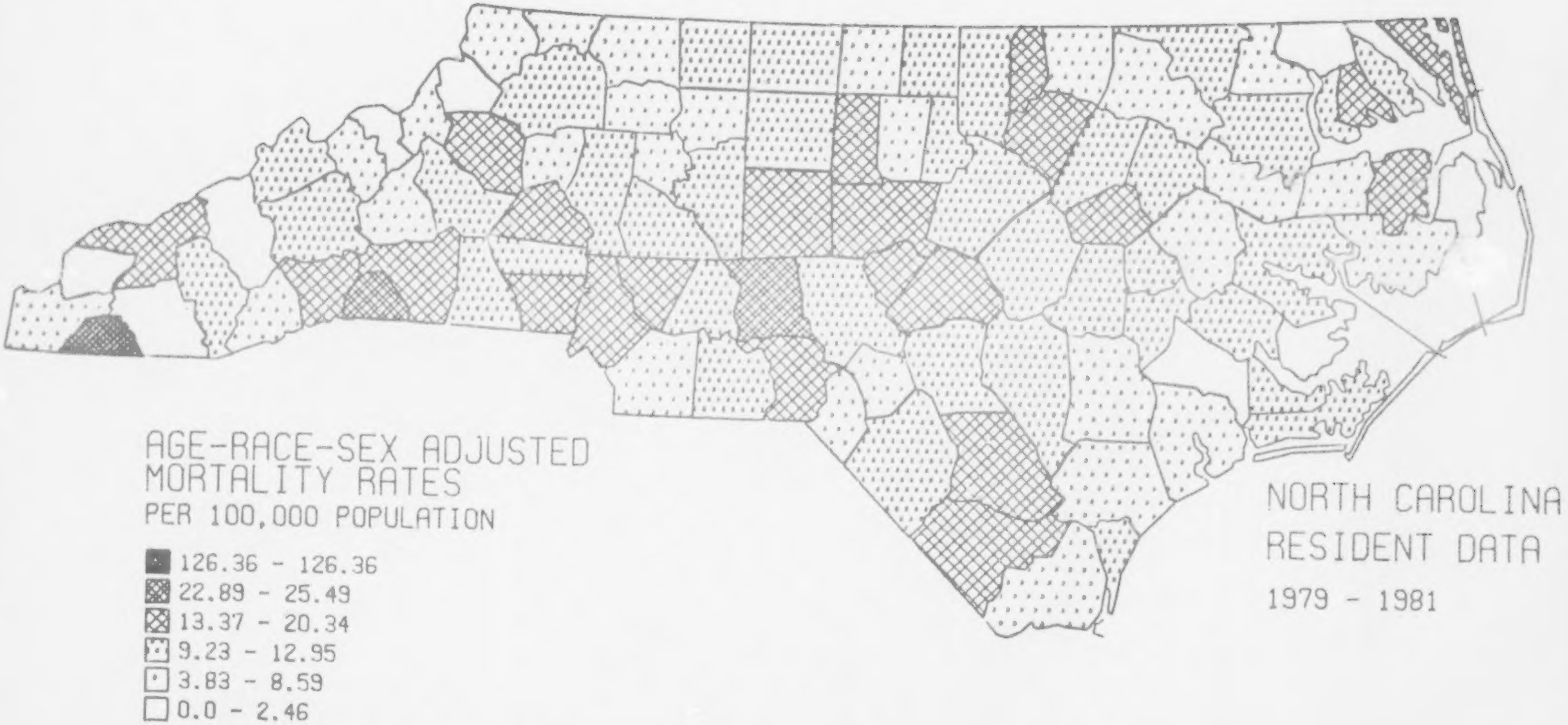

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
■ 126.36 - 126.36
▩ 22.89 - 25.49
▨ 13.37 - 20.34
▦ 9.23 - 12.95
▫ 3.83 - 8.59
☐ 0.0 - 2.46
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 27.B

REFERENCES FOR SECTION VIII

1. National Safety Council, Statistics Division. *Accident Facts: 1982 Edition*. Chicago, Illinois, 1983.

2. United States Department of Health and Human Services, Public Health Service, National Center for Health Statistics. "Annual Summary of Births, Deaths, Marriages, and Divorces: United States 1981," *Monthly Vital Statistics Report*. Publication No. (PHS) 83-1120, Volume 30, Number 13, Hyattsville, Maryland, December 20, 1982.

3. United States Department of Health and Human Services, Public Health Service, Centers For Disease Control. "State Action to Prevent Motor Vehicle Deaths and Injuries Among Children and Adolescents," *Morbidity and Mortality Weekly Report*. Volume 31, Number 35, Atlanta, Georgia, September 10, 1982.

4. N. C. Department of Human Resources, Division of Health Services, Medical Examiner's Section. "Annual Report 1981", *NCME News*. Volume 30, Number 6, Chapel Hill, N.C., November 1982, pp. 22-37.

5. N. C. Department of Human Resources, N.C. Carolina Health Coordinating Council. *North Carolina State Health Plan*. Raleigh, N.C., April 11, 1979, pp. 103-115.

6. United States Department of Health and Human Services, Public Health Service, Centers for Disease Control. "Alcohol as a Risk Factor for Injuries--United States," *Morbidity and Mortality Weekly Report*. Volume 32, Number 5, February 11, 1983.

IX. Infant Mortality

INFANT MORTALITY

Despite a steady decline in infant mortality over the last ten years, North Carolina's infant mortality rate continues to be one of the highest in the U.S. Provisional statistics from the National Center for Health Statistics show that the North Carolina rate of 13.7 infant deaths per 1000 live births in 1981 was exceeded by only 7 states and the District of Columbia (1). This rate compares to 13.9 for West Virginia, 14.0 for Louisiana, 14.3 for Tennessee, 14.4 for Missouri, 14.8 for both Georgia and Mississippi, 15.3 for South Carolina, and 26.6 for the District of Columbia (1). The North Carolina infant mortality rate was exceeded by those of 5 states in 1979 and 4 states in 1980. (1)

Compared to the United States as a whole, the provisional 1981 North Carolina infant mortality rate was 17 percent higher--13.7 vs. 11.7. The North Carolina rate was about the same as the rate of 13.9 for the South Atlantic Area which includes 8 states and the District of Columbia. (1)

Using final mortality statistics from the North Carolina State Center for Health Statistics, North Carolina's infant mortality rate has dropped each year since 1974 with the exception of 1978 when the rate climbed to 16.6 from a sharp drop in 1977 to 15.8. This same pattern prevailed for both neonatal and postneonatal deaths. During this period of decline, the state's Perinatal Care Program was developed with the goal of improving pregnancy outcome. Concomitant with the implementation and operation of this program, there occurred a general shift of deliveries from small hospitals to larger ones and a doubling of the percentage of very low-weight deliveries occurring in hospitals with newborn intensive care units. Both of these occurrences aided in reducing infant mortality as did social and economic improvements over the period.

The following statements summarize changes in N.C.'s infant mortality between 1969-73 and 1977-81: (2)

- Among infants of both races weighing 1500 grams or less at birth, postneonatal death rates increased while neonatal mortality rates decreased slightly.
- For both races, notable reductions in neonatal mortality occurred among infants weighing 1501-2500 grams at birth; each race-specific rate declined by more than one-half.
- Among infants weighing over 2500 grams at birth, reductions in neonatal mortality were greater for nonwhites than for whites.
- For both races, reductions in both neonatal and postneonatal mortality rates were generally high among older mothers, mothers experiencing a fourth or higher-order birth, and mothers with no history of fetal loss.
- Except as noted above, neonatal reductions were greater for whites while postneonatal reductions were far greater for nonwhites. Unmarried white mothers experienced virtually no improvement in postneonatal loss.

Although the decline in infant mortality is encouraging, particular concern persists over the continuing excessive infant loss among nonwhites. Since 1974 both whites and nonwhites have experienced substantial declines in infant mortality (over 29%), but the nonwhite rate continues to be about 1.6 times the white rate. This same pattern is also evident with neonatal deaths.

The highly publicized disease known as "sudden infant death syndrome" (SIDS) or "crib death" continues to be a concern of many North Carolinians. Comprising 13 percent of all infant deaths in 1981, this disease claimed the lives of 142 infants, an incidence of 1.7 such deaths per 1,000 live births which was about the same as in 1976 (1.8). Nonwhites had a rate 1.7 times the white rate, lower than the 1976 nonwhite/white ratio of 3.5. Male and female infants had approximately the same SIDS rate in 1981.

Risk Factors

Certain characteristics of the mother and infant that are recorded on the birth certificate have been shown to be associated with excessive infant mortality. These characteristics include: maternal age under 18 or above 34; education less than twelve years; birth order greater than three; the experience of having had a previous live born who died or a previous fetal death; birth out of wedlock; and low birth weight. Of these characteristics, the greatest single problem associated with infant mortality is low birth weight. (2)

For the maternal risk characteristics noted above, the risk of mortality differs according to age at death. For both whites and nonwhites, the greatest maternal risk factor for neonatal deaths has been "a previous live born now dead." This suggests that home environment or genetic factors contribute to neonatal mortality (2). Low education is the major risk factor associated with postneonatal mortality for both racial groups, again implicating the home environment as a factor.

Low birth weight, low education levels, large family size, fetal mortality, and out-of-wedlock births are all more likely in the lower socioeconomic groups, and thus development strategies that improve substandard housing and raise low income and education levels should have a direct impact on infant mortality.

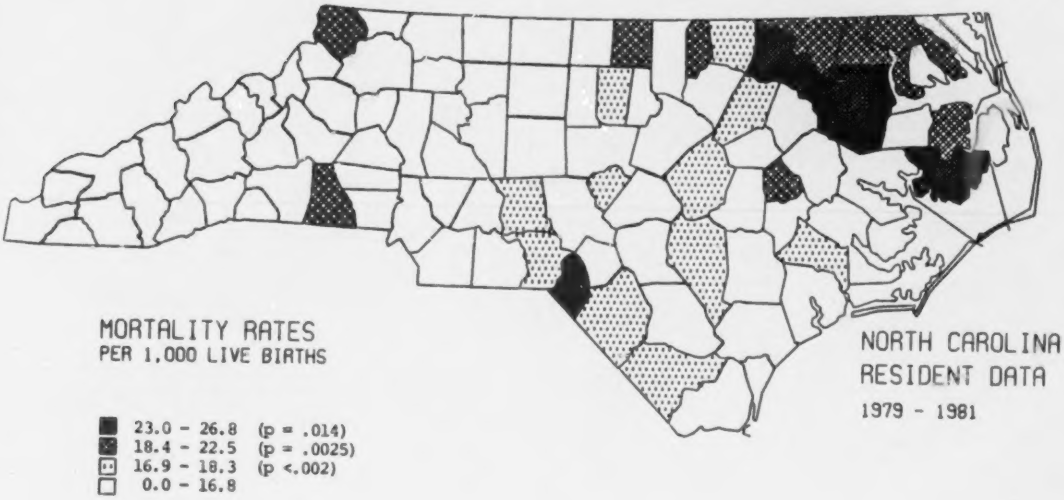
Geographic Patterns

As shown in Figure 28, eastern North Carolina is the major area of high risk for infant mortality, with a string of contiguous counties in the northeast extending south to Sampson County and in the southcentral area along the South Carolina border. This pattern is similar to the one revealed in the 1974-78 period. In fact, among the 31 counties with high rates (Levels 4-6) in 1979-81, 20 also experienced level-four or higher rates in 1974-78; 18 of those were in the eastern and southern areas of the state.

Based on procedures outlined in Section II, the map on the next page shows that the contiguous high-rate areas identified above are clustering geographically. In fact, this map suggests that perhaps 3 separate (in intensity) clusters exist: a group of counties in the northeast involving Bertie, Halifax, and Martin counties; a second group also in the northeast containing counties with high but lesser rates (Gates, Chowan, Hertford, Northampton, and Pasquotank); and a third group in the southern region of the state extending from Montgomery to Columbus. The reader is again cautioned about rates with small numerators.

With the eighth highest rate in the nation in 1981, North Carolina's infant mortality problem presents a real challenge to health professionals concerned with the delivery of maternal and early infant care as well as to those responsible for improving the socioeconomic environment in counties with the highest rates.

INFANT MORTALITY



MORTALITY RATES
PER 1,000 LIVE BIRTHS

■ 23.0 - 26.8 (p = .014)
▩ 18.4 - 22.5 (p = .0025)
⊡ 16.9 - 18.3 (p <.002)
☐ 0.0 - 16.8

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

TABLE 28

MORTALITY STATISTICS FOR 1981

NORTH CAROLINA RESIDENTS

INFANT DEATHS

GEOGRAPHICAL AREA	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
NORTH CAROLINA	1103	13.16	3601	14.28	0.00
REGIONS					
DHR I WESTERN	325	12.15	1108	13.76	0.00
DHR II N. CENTRAL	185	11.55	591	12.34	0.00
DHR III S. CENTRAL	300	14.47	983	15.62	0.00
DHR IV EASTERN	293	14.44	919	15.12	0.00
HSA I WESTERN	155	12.23	510	13.24	0.00
HSA II PIEDMONT	146	10.37	490	11.68	0.00
HSA III S. PIEDMONT	170	12.08	598	14.24	0.00
HSA IV CAPITAL	171	15.72	503	15.35	0.00
HSA V CARDINAL	208	14.04	703	15.52	0.00
HSA VI EASTERN	253	14.65	797	15.46	0.00
COUNTIES					
1 ALAMANCE	18	16.11	54	16.05	0.00
2 ALEXANDER	7	22.22	16	15.64	0.00
3 ALLEGHANY	2	16.94	5	14.16	0.00
4 ANSON	5	12.78	17	14.96	0.00
5 ASHE	3	9.96	19	21.54	0.00
6 AVERY	4	21.16	8	13.62	0.00
7 BEAUFORT	5	8.41	26	14.14	0.00
8 BERTIE	7	22.08	22	23.18	0.00
9 BLADEN	5	12.22	17	13.32	0.00
10 BRUNSWICK	9	17.47	19	12.54	0.00
11 BUNCOMBE	15	7.67	69	11.52	0.00
12 BURKE	8	9.09	35	13.08	0.00
13 CABARRUS	10	9.11	41	12.34	0.00
14 CALDWELL	14	16.82	44	16.81	0.00
15 CAMDEN	0	0.00	2	8.36	0.00
16 CARTERET	9	14.46	24	13.35	0.00
17 CASWELL	3	10.90	9	11.93	0.00
18 CATAWBA	11	8.14	49	11.60	0.00
19 CHATHAM	7	14.70	18	12.82	0.00
20 CHEROKEE	2	8.88	7	9.95	0.00
21 CHOWAN	1	5.12	11	19.74	0.00
22 CLAY	1	12.19	4	16.19	0.00
23 CLEVELAND	25	22.76	69	20.00	0.00
24 COLUMBUS	14	17.67	44	17.43	0.00
25 CRAVEN	14	9.12	52	11.67	0.00
26 CUMBERLAND	74	14.39	236	15.24	0.00
27 CURRITUCK	4	26.14	5	10.79	0.00
28 DARE	1	4.60	4	6.89	0.00
29 DAVIDSON	13	9.01	38	8.80	0.00
30 DAVIE	4	14.38	9	10.27	0.00
31 DUPLIN	12	22.34	21	12.62	0.00
32 DURHAM	26	12.54	88	14.15	0.00
33 EDGECOMBE	11	13.04	38	14.37	0.00
34 FORSYTH	23	7.38	98	10.61	0.00
35 FRANKLIN	2	5.52	11	9.78	0.00
36 GASTON	34	14.52	101	14.79	0.00
37 GATES	1	8.92	8	22.40	0.00
38 GRAHAM	1	9.61	2	6.45	0.00
39 GRANVILLE	7	15.87	19	15.06	0.00
40 GREENE	5	24.03	14	20.64	0.00
41 GUILFORD	58	14.09	149	12.08	0.00

* SEE SECTION II

MORTALITY STATISTICS FOR 1981, NORTH CAROLINA RESIDENTS
INFANT DEATHS CONT'D.

COUNTIES (CONT'D)	NUMBER OF DEATHS 1981	DEATH RATE* 1981	NUMBER OF DEATHS 1979-81	DEATH RATE* 1979-81	ADJUSTED DEATH RATE* 1979-81
42 HALIFAX	25	26.26	68	24.73	0.00
43 HARNETT	8	8.84	37	13.13	0.00
44 HAYWOOD	7	14.02	22	14.98	0.00
45 HENDERSON	11	14.68	26	11.80	0.00
46 HERTFORD	9	25.42	23	21.04	0.00
47 HOKE	3	9.06	15	14.52	0.00
48 HYDE	4	42.55	7	26.71	0.00
49 IREDELL	8	7.40	48	14.61	0.00
50 JACKSON	2	6.21	11	12.22	0.00
51 JOHNSTON	11	11.84	47	16.90	0.00
52 JONES	3	22.05	7	18.13	0.00
53 LEE	10	16.86	32	17.93	0.00
54 LENOIR	10	11.32	41	15.49	0.00
55 LINCOLN	6	10.47	26	15.43	0.00
56 MCDOWELL	3	6.41	11	8.17	0.00
57 MACON	1	3.93	8	11.64	0.00
58 MADISON	5	28.57	6	10.94	0.00
59 MARTIN	8	20.77	26	23.09	0.00
60 MECKLENBURG	80	13.14	271	15.07	0.00
61 MITCHELL	2	10.58	6	11.34	0.00
62 MONTGOMERY	6	19.86	16	17.00	0.00
63 MOORE	7	9.95	30	14.25	0.00
64 NASH	12	11.71	54	17.55	0.00
65 NEW HANOVER	16	11.43	49	11.77	0.00
66 NORTHAMPTON	7	21.94	18	18.42	0.00
67 ONSLOW	40	14.35	104	12.59	0.00
68 ORANGE	15	16.57	49	18.35	0.00
69 PAMLICO	1	6.45	6	15.54	0.00
70 PASQUOTANK	4	8.88	25	18.95	0.00
71 PENDER	1	3.11	10	10.02	0.00
72 PERQUIMANS	1	7.24	5	12.72	0.00
73 PERSON	9	24.19	21	18.83	0.00
74 PITT	21	16.16	57	14.51	0.00
75 POLK	1	7.14	6	14.70	0.00
76 RANDOLPH	2	1.74	32	9.38	0.00
77 RICHMOND	9	14.33	36	17.78	0.00
78 ROBESON	29	16.43	99	18.02	0.00
79 ROCKINGHAM	10	8.94	50	15.25	0.00
80 ROWAN	13	10.36	40	10.22	0.00
81 RUTHERFORD	11	15.40	32	14.69	0.00
82 SAMPSON	9	12.93	39	17.93	0.00
83 SCOTLAND	13	25.49	39	24.29	0.00
84 STANLY	6	9.91	27	14.58	0.00
85 STOKES	7	16.99	15	12.69	0.00
86 SURRY	7	9.43	27	12.04	0.00
87 SWAIN	1	5.58	4	7.87	0.00
88 TRANSYLVANIA	4	17.02	7	8.55	0.00
89 TYRRELL	1	14.70	4	20.61	0.00
90 UNION	13	12.64	44	14.08	0.00
91 VANCE	16	29.62	37	22.23	0.00
92 WAKE	63	15.87	168	14.01	0.00
93 WARREN	5	23.25	13	17.03	0.00
94 WASHINGTON	2	8.69	9	13.21	0.00
95 WATAUGA	3	8.28	6	5.91	0.00
96 WAYNE	20	12.52	68	13.68	0.00
97 WILKES	7	9.07	32	13.88	0.00
98 WILSON	15	15.22	48	16.63	0.00
99 YADKIN	1	3.16	9	9.29	0.00
100 YANCEY	4	23.95	6	11.27	0.00

* SEE SECTION II

INFANT MORTALITY

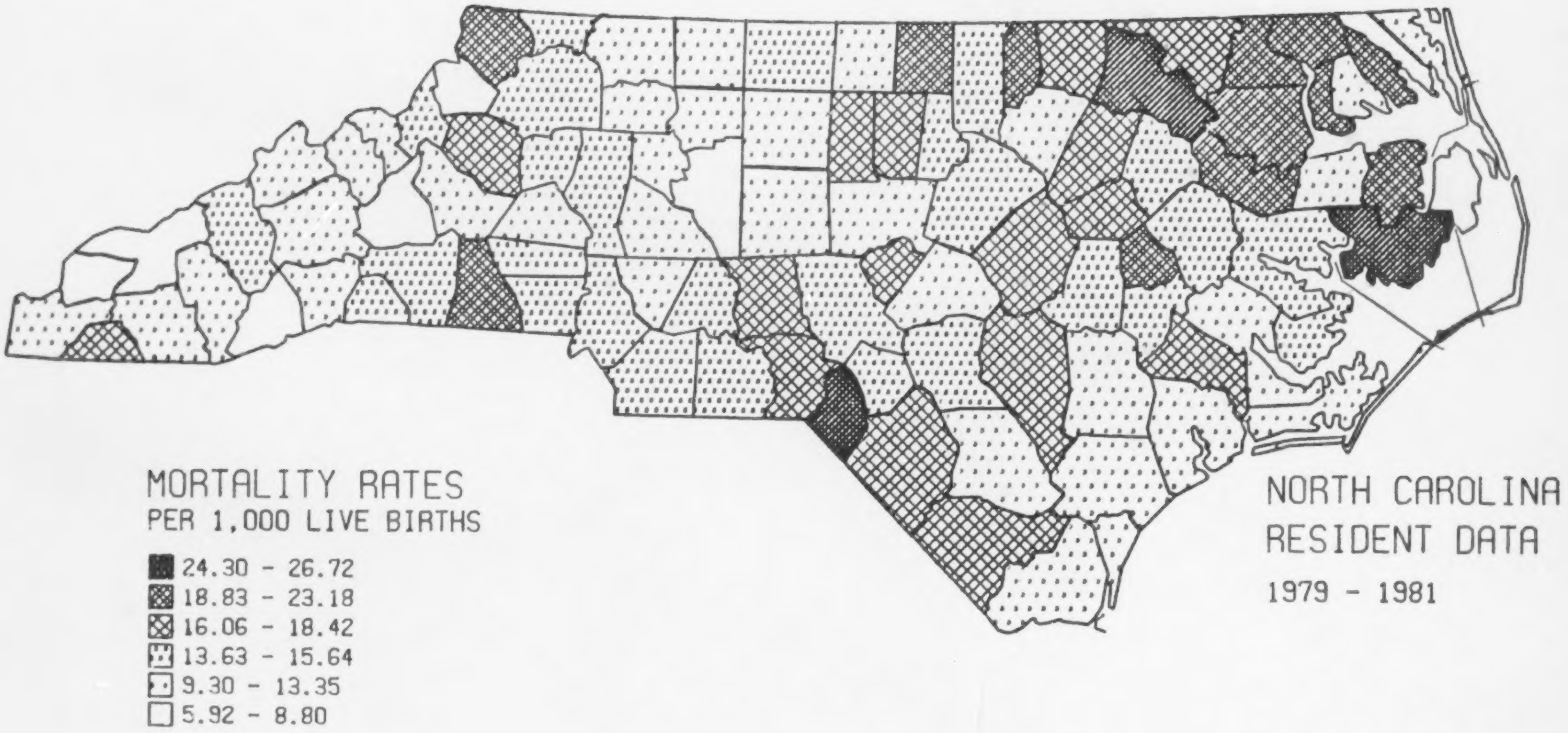

MORTALITY RATES
PER 1,000 LIVE BIRTHS
■ 24.30 - 26.72
▩ 18.83 - 23.18
▨ 16.06 - 18.42
▦ 13.63 - 15.64
⊡ 9.30 - 13.35
☐ 5.92 - 8.80
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 28

REFERENCES FOR SECTION IX

1. United States Department of Health and Human Services, Public Health Service, National Center for Health Statistics. "Annual Summary of Births, Deaths, Marriages, and Divorces: United States 1981," Monthly Vital Statistics Report. Publication No. (PHS) 82-1120, Volume 30, Number 13, Hyattsville, Maryland, December 20, 1982.

2. North Carolina Department of Human Resources, Division of Health Services, Maternal and Child Care Section. North Carolina Maternal and Child Health Statistics 1979, Volume I. Raleigh, N.C., December 1980.

X. Multiple Conditions Present at Death

MULTIPLE CONDITIONS PRESENT AT DEATH

Deaths have traditionally been tabulated by the major or "underlying" cause of death. In a modern society, however, where chronic diseases have come to replace acute infectious diseases as the leading causes of mortality, it has become increasingly difficult to describe each death by only one cause. Beginning in 1975 in North Carolina, all conditions mentioned on the death certificate have been coded, and it has therefore become possible to look at multiple causes of death in a systematic manner.

In 1982 the State Center for Health Statistics published Multiple Conditions Present at Death: A Special Study, which examined in detail the history of multiple-condition coding, trends from 1969 to 1978 in multiple causes of death, and some data for the most recent years then available (1979 and 1980). Readers with a particular interest in this topic are referred to that publication. Additional copies are available from the State Center for Health Statistics. The reader may note some differences between the 1978 data reviewed here and that in the 1978 Leading Causes of Mortality. These differences result from improvements in multiple-condition counting that are explained in the above publication.

In future editions of Leading Causes of Mortality, the State Center plans to address special topics related to multiple causes of death and to provide the most recently available information. The present volume will highlight the publication cited above and then present the data for 1981 deaths.

In 1969, 67.9 percent of North Carolina resident deaths had more than one condition mentioned on the death certificate, and by 1978 this had increased to 73.5 percent. The percent of deaths with more than one condition mentioned in 1978 was 60.7 for deaths under age 1, decreasing to a low of 26.1 at ages 15-24 where motor vehicle accidents are the leading cause, and then increasing steadily through the older ages to 83.6 percent for ages 85 and over. In 1978, 75.0 percent of death certificates for whites had more than one condition mentioned, compared to 69.2 percent for nonwhites. For males this percent was 71.4, versus 76.2 for females.

Atherosclerosis, hypertension, and diabetes were three conditions that had a high number of mentions in comparison to underlying cause assignments in 1978, and which were therefore analyzed in some detail in *Multiple Conditions Present at Death: A Special Study*. Some race-sex and geographic variations for these conditions are briefly examined below. White males had the highest rate of mentions of atherosclerosis per 100,000 population in 1978 (366), with white females and nonwhite males close together at a lower level (about 300), and nonwhite females much lower still (257). For hypertension, on the other hand, there is a clear racial differential, with nonwhites having about twice the rate of whites (120 versus about 60 in 1978). For diabetes, nonwhite females stand out with a rate of 80 mentions per 100,000 population; that is 40 to 78 percent higher than rates for the other race-sex groups.

Comparing geographic areas for these three diseases, the most noticeable variation is very high rates in the Eastern Health Service Area for hypertension (91 compared to 75 for N.C. in 1978) and diabetes (70 compared to 58 for N.C. in 1978). Since this region has a large nonwhite population, and the prevalence of hypertension and diabetes is higher among nonwhites, these rates are expected to be somewhat higher. But even the race-specific rates in this region for hypertension and diabetes are considerably higher than those for N.C. as a whole, and so the higher rates appear to be due also to a higher risk of hypertension and diabetes in eastern North Carolina, though it is possible that death certificate recording practices contribute to these differences.

Table 29 displays rates for the 14 leading underlying causes of death in 1981, first ranked by underlying cause and then by number of mentioned conditions per 100,000 population. The reader should be cautioned that the data on mentioned conditions at best reflect morbidity just among those persons who die. And even this implies a completeness of reporting that is not actually present, since the certificate asks for only conditions "contributing to death" and medical certification may not reflect all conditions present at death. Nevertheless, a comparison of the two columns of Table 29 does identify causes of death that are much more prevalent than counts by underlying cause would indicate. Cancer, motor vehicle accidents, homicide, and suicide almost always appear as the underlying cause. (The rates in the two columns of Table 29 are very similar.) As in 1978, hypertension, atherosclerosis, and diabetes are mentioned many times as often as they appear as the underlying cause (18.1, 25.5, and 4.5 times as often, respectively). The ratios for pneumonia and influenza, nonmotor-vehicle accidents, and chronic obstructive lung disease are greater than 2. Nephritis/nephrosis has a ratio of mentions to underlying of 4.7, which is a large increase over the 1978 ratio of 2.7. There were, however, significant changes in the coding of nephritis/nephrosis with the shift from the 8th to the 9th International Classification of Diseases after 1978. But the substantially higher ratio for this cause in 1981 does nevertheless warrant further investigation.

TABLE 29
1981 Deaths Per 100,000 Population by Cause: Ranked by Underlying Cause and Mentioned Conditions North Carolina Residents

Deaths with Cause as Underlying, Per 100,000 Population		Deaths with Cause Mentioned, Per 100,000 Population	
Heart Disease	306.5	Heart Disease	448.1
Cancer	166.1	Atherosclerosis	247.0
Cerebrovascular Disease	79.1	Cancer	188.9
Motor Vehicle Accidents	25.6	Cerebrovascular Disease	132.6
Nonmotor-Vehicle Accidents	24.7	Hypertension	72.3
Pneumonia and Influenza	23.8	Pneumonia and Influenza	67.4
Chronic Obstructive Lung Disease	21.8	Diabetes	60.6
Diabetes Mellitus	13.4	Chronic Obstructive Lung Disease	57.0
Suicide	12.9	Nonmotor-Vehicle Accidents	50.8
Cirrhosis of the Liver	11.0	Nephritis and Nephrosis	40.3
Homicide	10.5	Motor Vehicle Accidents	26.0
Atherosclerosis	9.7	Cirrhosis of the Liver	16.8
Nephritis and Nephrosis	8.6	Suicide	12.9
Hypertension	4.0	Homicide	10.6

Tables 30 and 31 present crosstabulations of the 1981 data on multiple conditions present at death. Comparisons to 1978 and earlier years should be made with extreme caution since the International Classification of Diseases by which causes of death are coded was changed in 1979 (1). Also the method of counting some conditions, in particular atherosclerosis, was changed in 1979 as explained in Multiple Condtions Present at Death: A Special Study.

Table 30 shows number of deaths by underlying cause (first column) and then number of certificates with a given underlying cause (each row) that had a mention of other conditions. For example, there were 798 deaths in 1981 with diabetes as the underlying cause and 112 of these deaths also had a mention of nephritis on the certificate (second panel of table, row 17, column 21). In total, 3611 deaths had a mention of diabetes in 1981 (column 17, bottom row).

Table 31 shows the number of deaths for which selected pairs of conditions were mentioned, without any consideration of what the underlying cause was. For example, 263 death certificates (out of a total of 49212 - from Table 30) had both diabetes and nephritis mentioned (row 27, column 21, second panel of Table 31). As in Table 30, the bottom row shows the total number of certificates with a mention of each of the conditions. For additional information about relationships in Tables 30 and 31, see Multiple Conditions Present At Death: A Special Study.

Table 32 compares the mentioned-conditions rates in 1979 and 1981. For example, dividing 26,707 by the 1981 N.C. population and multiplying by 100,000 yields the 1981 heart disease rate of 448.1 shown in Table 32. It can be seen that the death rate for mentioned conditions increased from 1979 to 1981 for heart disease, hypertension, cancer, diabetes, pneumonia and influenza, chronic obstructive pulmonary disease, nephritis/nephrosis, and suicide.* Part of this could be due to increased diligence in recording multiple conditions on the death certificate. For heart disease, cancer, pneumonia and influenza, chronic lung disease, nephritis, and suicide, the underlying cause death rate (unadjusted for age but based on updated 1979 population estimate) also increased from 1979 to 1981. But the higher rates for hypertension and diabetes, where the underlying cause rate has not increased, should particularly raise questions concerning why the increases have occurred.

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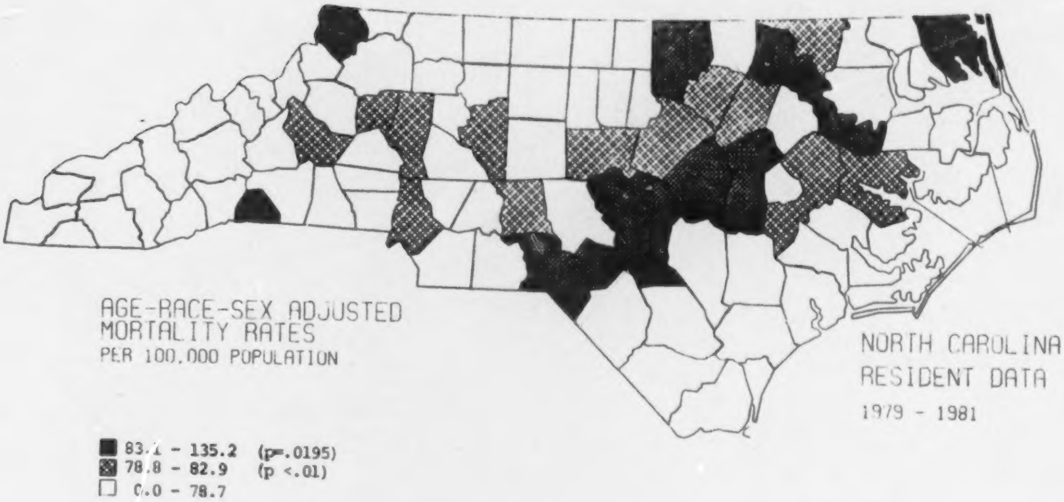
*The increases for hypertension and suicide are not statistically significant while all other increases are significant at the 95 to 99 percent confidence levels.

Geographic Patterns

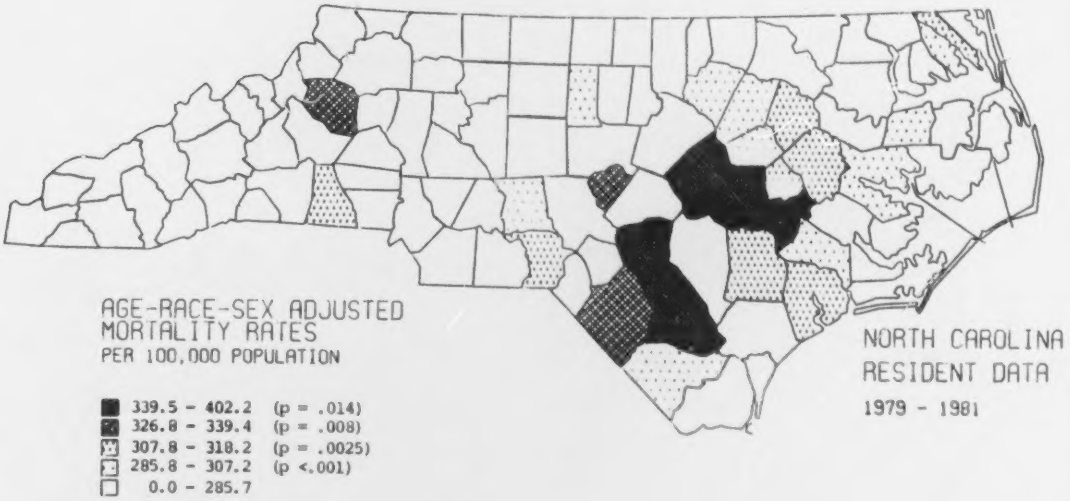
County maps in this section show 1979-81 mentions per 100,000 resident population for hypertension, atherosclerosis, and diabetes, since these are conditions where a much higher number of mentions may present a different picture from that based on underlying cause deaths. Figures 29.A and 29.B show levels of unadjusted and age-race-sex-adjusted rates for hypertension; Figures 30.A and 30.B show levels of these rates for atherosclerosis; and Figures 31.A and 31.B are for diabetes. In interpreting these rates, the reader is cautioned that county differences in death certificate recording practices may have a large effect on the reported rates. A low rate in an individual county may reflect incomplete recording rather than lack of a health problem. The clustering technique described in Section II does, however, help delineate groups of counties with high rates.

The map below for hypertension shows a significant cluster of counties with high adjusted rates, extending from Richmond County up toward the northeast part of the state. The map for atherosclerosis shows a strong cluster of counties with high adjusted rates centering around Lenoir, Wayne, Johnston, Cumberland, and Bladen counties. The cluster map for adjusted diabetes rates indicates a strong regional concentration in the eastern part of the state. Thus residents of eastern North Carolina appear to be at high risk for death associated with hypertension, atherosclerosis, and diabetes, after the effects of different age-race-sex distributions have been statistically eliminated. Clustering maps of unadjusted rates for hypertension and diabetes presented essentially the same picture and are therefore not shown here.

CONDITIONS MENTIONED - HYPERTENSION


AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
■ 83.1 - 135.2 (p=.0195)
▩ 78.8 - 82.9 (p <.01)
☐ 0.0 - 78.7
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

CONDITIONS MENTIONED - ATHEROSCLEROSIS


AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
■ 339.5 - 402.2 (p = .014)
▩ 326.8 - 339.4 (p = .008)
▨ 307.8 - 318.2 (p = .0025)
⊡ 285.8 - 307.2 (p <.001)
☐ 0.0 - 285.7
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

CONDITIONS MENTIONED - DIABETES

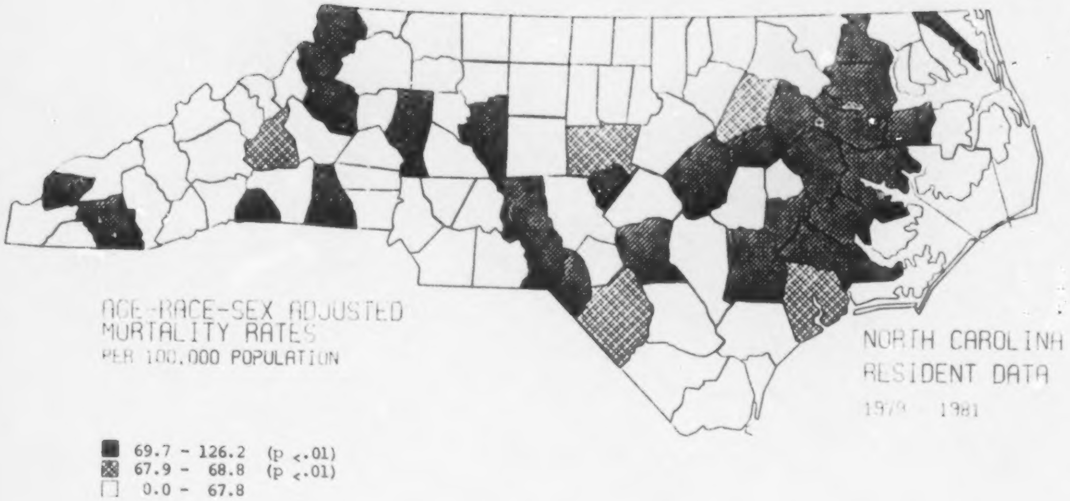

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
NORTH CAROLINA
RESIDENT DATA
1979 - 1981
■ 69.7 - 126.2 (p <.01)
▨ 67.9 - 68.8 (p <.01)
☐ 0.0 - 67.8

TABLE 30

DEATHS BY SELECTED UNDERLYING CAUSE WITH FREQUENCY OF MENTIONED CONDITIONS, NORTH CAROLINA RESIDENTS, 1981

Underlying Cause of Death	Total Under-lying*	Conditions Mentioned on Death Certificate (Numbers refer to row titles)											
		1	2	3	4	5	6	7	8	9	10	11	12
1 Diseases of heart	18270	18269	8128	8458	2589	1965	9638	691	13	98	9	103	63
2 Acute myocardial infarction	8091	8091	8091	3349	1025	421	3759	242	3	28	5	53	19
3 Other forms of ischemic heart disease	5036	5036	0	5036	517	568	3797	209	5	36	3	22	16
4 Hypertension with or without renal disease	240	103	0	0	237	23	79	10	0	3	0	0	2
5 Cerebrovascular disease	4717	1261	61	350	744	4716	2101	129	1	22	4	19	16
6 Atherosclerosis	580	312	0	0	0	1	580	29	0	6	0	2	5
7 Cancer	9899	2185	65	409	191	267	617	9899	287	1078	584	2585	819
8 Stomach	278	63	4	14	6	5	25	278	278	1	2	0	1
9 Colon, rectum, rectosigmoid junction & anus	1051	232	8	58	25	26	83	1051	1	1051	2	3	1
10 Pancreas	575	123	2	22	13	15	33	575	1	0	575	0	1
11 Trachea, bronchus and lung	2564	507	19	120	45	63	164	2564	0	9	0	2564	8
12 Female breast	798	147	2	18	18	22	34	798	2	3	2	2	798
13 Cervix uteri	160	37	1	4	2	2	10	160	0	0	0	0	0
14 Ovary & other uterine adnexa	232	41	2	3	3	8	6	232	0	2	0	0	4
15 Prostate	660	188	2	48	19	20	74	660	0	3	0	2	0
16 Leukemia	394	114	4	11	2	35	19	394	0	2	0	1	2
17 Diabetes Mellitus	798	529	183	199	141	207	333	14	0	3	0	2	3
18 Pneumonia & Influenza	1418	549	32	161	50	180	300	97	2	5	1	21	7
19 Chronic obstructive pulmonary disease & allied conditions	1299	660	59	154	44	72	219	78	1	5	3	20	2
20 Chronic liver disease and cirrhosis	653	139	5	20	11	7	31	13	0	1	1	1	0
21 Nephritis, nephrotic syndrome & nephrosis	510	243	22	34	16	45	68	19	0	5	0	1	0
22 Motor vehicle accidents	1525	66	7	12	4	6	7	1	0	0	0	0	0
23 All other accidents & adverse effects	1470	302	21	51	36	35	97	32	1	6	1	6	2
24 Suicide	766	18	1	4	1	4	1	15	0	0	1	2	0
25 Homicide	626	15	0	2	0	1	4	0	0	0	0	0	0
TOTAL DEATHS**	49212	26707	8741	10158	4310	7904	14723	11258	310	1260	613	2792	937

TABLE 30 - continued

DEATHS BY SELECTED UNDERLYING CAUSE WITH FREQUENCY OF MENTIONED CONDITIONS, NORTH CAROLINA RESIDENTS, 1981

Underlying Cause of Death	Conditions Mentioned on Death Certificate (Numbers refer to row titles) 13	14	15	16	17	18	19	20	21	22	23	24	25	Alcohol
1 Diseases of heart	6	8	144	49	1669	718	1119	109	568	12	465	1	2	213
2 Acute myocardial infarction	0	0	53	14	785	140	397	23	131	4	89	0	0	73
3 Other forms of ischemic heart disease	3	3	51	21	488	247	390	33	193	5	151	0	0	62
4 Hypertension with or without renal disease	0	0	4	0	26	16	13	0	14	0	7	0	0	3
5 Cerebrovascular disease	1	2	24	8	396	408	108	15	110	3	156	0	1	28
6 Atherosclerosis	0	0	6	1	40	60	25	0	67	0	27	0	0	4
7 Cancer	166	238	704	416	238	533	419	35	343	1	230	0	0	27
8 Stomach	1	0	3	1	6	10	5	1	6	0	6	0	0	0
9 Colon, rectum, rectosigmoid junction & anus	2	2	5	0	26	38	23	6	43	0	29	0	0	3
10 Pancreas	0	0	2	4	34	19	13	2	16	0	7	0	0	2
11 Trachea, bronchus and lung	3	0	17	3	47	194	239	6	22	0	36	0	0	11
12 Female breast	0	1	0	1	13	33	10	0	7	0	18	0	0	0
13 Cervix uteri	160	0	0	0	1	5	0	1	25	0	3	0	0	0
14 Ovary & other uterine adnexa	0	232	0	0	4	6	2	1	6	0	6	0	0	0
15 Prostate	0	0	660	5	18	30	28	0	62	0	9	0	0	1
16 Leukemia	0	0	3	394	5	37	10	0	14	0	18	0	0	0
17 Diabetes Mellitus	1	0	1	0	798	43	14	5	112	0	23	0	0	9
18 Pneumonia & Influenza	1	0	17	9	74	1418	109	23	64	1	34	0	0	36
19 Chronic obstructive pulmonary disease & allied conditions	0	1	18	3	41	213	1299	14	36	0	36	0	0	15
20 Chronic liver disease and cirrhosis	0	0	0	0	25	39	21	647	49	0	26	0	0	324
21 Nephritis, nephrotic syndrome & nephrosis	1	0	1	2	28	37	20	5	508	0	14	0	0	6
22 Motor vehicle accidents	0	0	0	0	2	6	3	6	6	1525	11	0	0	133
23 All other accidents & adverse effects	2	0	8	0	32	30	22	17	27	0	1470	0	0	232
24 Suicide	0	0	2	0	5	2	3	2	1	0	2	766	0	34
25 Homicide	0	0	0	0	0	1	1	3	3	0	4	0	626	29
TOTAL DEATHS**	184	252	952	511	3611	4018	3395	999	2400	1551	3027	769	632	1546

*Numbers shown here are the final underlying frequencies. They are sometimes larger than numbers shown on the diagonal due to the fact that a sequence of conditions may imply an underlying cause that is not specifically mentioned on the death certificate.

**Differences between these totals and the summation over causes are attributable to causes not given in the table.

Note: In this table, a death is counted only once in a condition category although several conditions within the category may have been reported or a single condition may have been recorded more than once on the death certificate.

TABLE 31

NUMBER OF DEATHS WITH SELECTED PAIRS OF CONDITIONS MENTIONED TOGETHER, NORTH CAROLINA RESIDENTS, 1981

Conditions Mentioned on Death Certificate	Conditions Mentioned on Death Certificate (Numbers refer to row titles) 1	2	3	4	5	6	7	8	9	10	11	12
1 Diseases of heart.	26707	8741	10158	3384	3696	12545	3107	83	364	138	655	238
2 Acute myocardial infarction.	8741	8741	3479	1090	537	3952	324	7	38	7	77	24
3 Other forms of ischemic heart disease.	10158	3479	10158	1076	1247	7700	761	20	114	27	177	47
4 Hypertension with or without renal disease	3384	1090	1076	4310	1389	1596	298	6	40	19	48	30
5 Cerebrovascular disease.	3696	537	1247	1389	7904	3893	487	7	73	19	93	50
6 Atherosclerosis.	12545	3952	7700	1596	3893	14723	1155	36	174	39	235	91
7 Cancer	3107	324	761	298	487	1155	11258	310	1260	613	2792	937
8 Stomach.	83	7	20	6	7	36	310	310	2	3	0	3
9 Colon, rectum, rectosigmoid junction & anus.	364	38	114	40	73	174	1260	2	1260	2	12	9
10 Pancreas	138	7	27	19	19	39	613	3	2	613	0	3
11 Trachea, bronchus and lung	655	77	177	48	93	235	2792	0	12	0	2792	11
12 Female breast.	238	24	47	30	50	91	937	3	9	3	11	937
13 Cervix uteri	48	1	8	4	7	17	184	1	2	0	3	0
14 Ovary & other uterine adnexa	51	3	7	6	10	11	252	0	4	0	0	5
15 Prostate	377	57	134	45	68	215	952	4	12	2	20	0
16 Leukemia	184	19	38	6	46	54	511	1	4	4	4	3
17 Diabetes Mellitus.	2689	1003	1221	810	869	1779	318	8	38	35	53	23
18 Pneumonia & Influenza.	1819	203	607	219	849	1185	718	14	56	22	230	49
19 Chronic obstructive pulmonary disease & allied conditions. . . .	2181	485	877	250	308	1154	586	8	35	17	291	15
20 Chronic liver disease and cirrhosis.	308	30	79	52	34	117	52	1	7	3	7	0
21 Nephritis, nephrotic syndrome & nephrosis.	1348	187	384	59	281	671	427	7	56	17	34	14
22 Motor vehicle accidents.	82	11	20	5	9	17	2	0	0	0	0	0
23 All other accidents & adverse effects.	1096	135	324	138	293	558	308	8	42	10	51	25
24 Suicide.	19	1	4	1	4	1	15	0	0	1	2	0
25 Homicide	17	0	2	0	2	4	0	0	0	0	0	0
26 Alcohol related conditions	440	85	124	77	53	143	43	0	4	2	13	0
TOTAL DEATHS*	26707	8741	10158	4310	7904	14723	11258	310	1260	613	2792	937

TABLE 31 - CONTINUED

NUMBER OF DEATHS WITH SELECTED PAIRS OF CONDITIONS MENTIONED TOGETHER, NORTH CAROLINA RESIDENTS, 1981

Conditions Mentioned on Death Certificate	Conditions Mentioned on Death Certificate (Numbers refer to row titles)													
	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1 Diseases of heart	48	51	377	184	2689	1819	2181	308	1348	82	1096	19	17	440
2 Acute myocardial infarction	1	3	57	19	1003	203	485	30	187	11	135	1	0	85
3 Other forms of ischemic heart disease	8	7	134	38	1221	607	877	79	384	20	324	4	2	124
4 Hypertension with or without renal disease	4	6	45	6	810	219	250	52	59	5	138	1	0	77
5 Cerebrovascular disease	7	10	68	46	869	849	308	34	281	9	293	4	2	53
6 Atherosclerosis	17	11	215	54	1779	1185	1154	117	671	17	558	1	4	143
7 Cancer	184	252	952	511	318	718	586	52	427	2	308	15	0	43
8 Stomach	1	0	4	1	8	14	8	1	7	0	8	0	0	0
9 Colon, rectum, rectosigmoid junction & anus	2	4	12	4	38	56	35	7	56	0	42	0	0	4
10 Pancreas	0	0	2	4	35	22	17	3	17	0	10	1	0	2
11 Trachea, bronchus and lung	3	0	20	4	53	230	291	7	34	0	51	2	0	13
12 Female breast	0	5	0	3	23	49	15	0	14	0	25	0	0	0
13 Cervix uteri	184	0	0	0	3	7	0	2	30	0	7	0	0	1
14 Ovary & other uterine adnexa	0	252	0	0	5	7	4	1	7	0	8	0	0	0
15 Prostate	0	0	952	9	38	66	72	1	76	0	25	2	0	2
16 Leukemia	0	0	9	511	14	58	20	1	21	0	21	0	0	0
17 Diabetes Mellitus	3	5	38	14	3611	235	183	52	263	2	121	5	0	51
18 Pneumonia & Influenza	7	7	66	58	235	4018	455	83	236	7	158	2	1	105
19 Chronic obstructive pulmonary disease & allied conditions	0	4	72	20	183	455	3395	69	142	5	105	3	1	77
20 Chronic liver disease and cirrhosis	2	1	1	1	52	83	69	999	76	6	61	2	3	439
21 Nephritis, nephrotic syndrome & nephrosis	30	7	76	21	263	236	142	76	2400	6	122	1	4	61
22 Motor vehicle accidents	0	0	0	0	2	7	5	6	6	1551	13	0	0	133
23 All other accidents & adverse effects	7	8	25	21	121	158	105	61	122	13	3027	2	4	298
24 Suicide	0	0	2	0	5	2	3	2	1	0	2	769	0	35
25 Homicide	0	0	0	0	0	1	1	3	4	0	4	0	632	30
26 Alcohol related conditions	1	0	2	0	51	105	77	439	61	133	298	35	30	1546
TOTAL DEATHS*	184	252	952	511	3611	4018	3395	999	2400	1551	3027	769	632	1546

*Differences between these totals and the summation over causes are attributable to causes not given in the table and to multiple counting of a condition if it appears in combination with more than one other condition on a certificate.

Note: In this table, a death is counted only once in a condition category although several conditions within the category may have been reported or a single condition may have been recorded more than once on the death certificate.

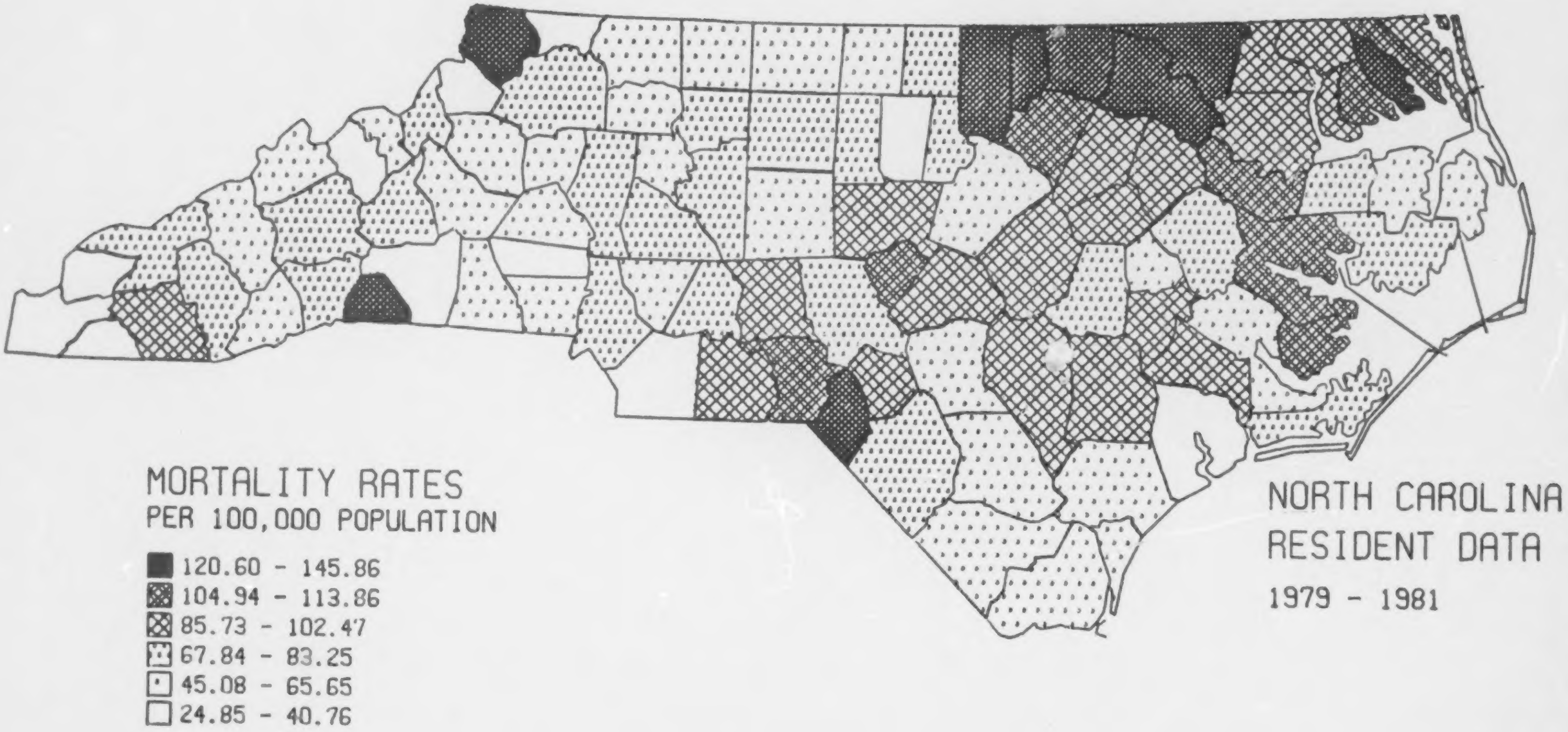
TABLE 32

Death with Mention of Selected Causes Per 100,000 Population: North Carolina Residents, 1979 and 1981

	1979	1981
Diseases of Heart	427.7	448.1
Acute Myocardial Infarction	150.7	146.6
Other Forms of Ischemic Heart Disease	168.2	170.4
Hypertension With or Without Renal Disease	70.8	72.3
Cerebrovascular Disease	134.8	132.6
Atherosclerosis	253.4	247.0
Cancer*	178.1	188.9
Stomach	5.5	5.2
Colon, Rectum, and Anus	20.4	21.1
Pancreas	8.2	10.3
Trachea, Bronchus, and Lung	41.8	46.8
Female Breast	29.1	30.5
Cervix Uteri	5.2	6.0
Ovary and Other Uterine Adnexa	8.4	8.2
Prostate	29.0	32.9
Leukemia	7.9	8.6
Diabetes Mellitis	56.6	60.6
Pneumonia and Influenza	59.5	67.4
Chronic Obstructive Pulmonary Disease	49.5	57.0
Chronic Liver Disease and Cirrhosis	17.7	16.8
Nephritis, Nephrotic Syndrome, and Nephrosis	35.9	40.3
Motor Vehicle Accidents	26.9	26.0
All Other Accidents and Adverse Effects	52.3	50.8
Suicide	12.2	12.9
Homicide	11.6	10.6
Alcohol-Related Conditions	26.0	25.9

*Sex-specific population is used in the rates for sex-specific cancer sites.
Note: Population estimates based on the 1980 census are used for both the 1979 and 1981 rates.

CONDITIONS MENTIONED - HYPERTENSION


MORTALITY RATES
PER 100,000 POPULATION
■ 120.60 - 145.86
▩ 104.94 - 113.86
▨ 85.73 - 102.47
⁙ 67.84 - 83.25
⊡ 45.08 - 65.65
☐ 24.85 - 40.76

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 29.A

CONDITIONS MENTIONED - HYPERTENSION

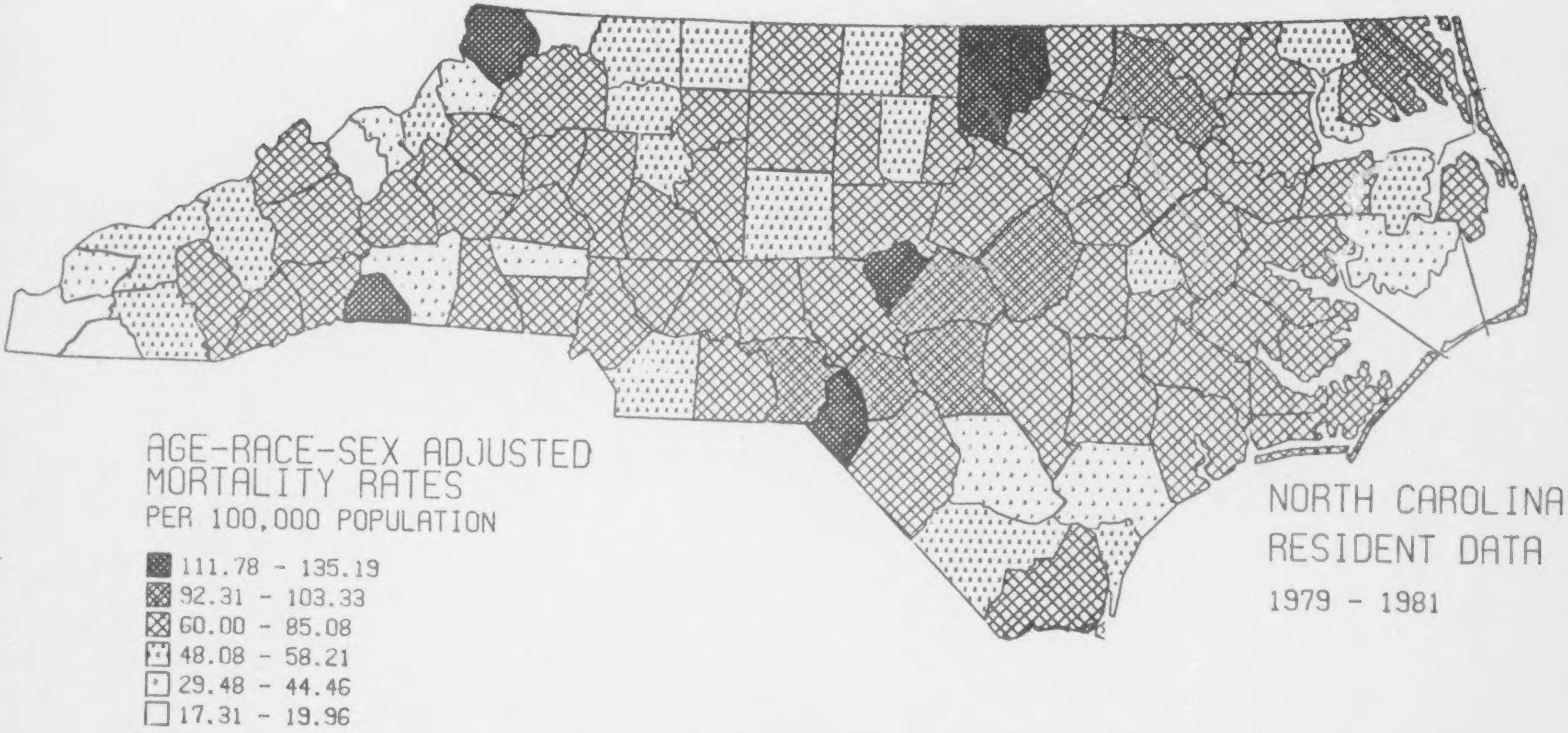
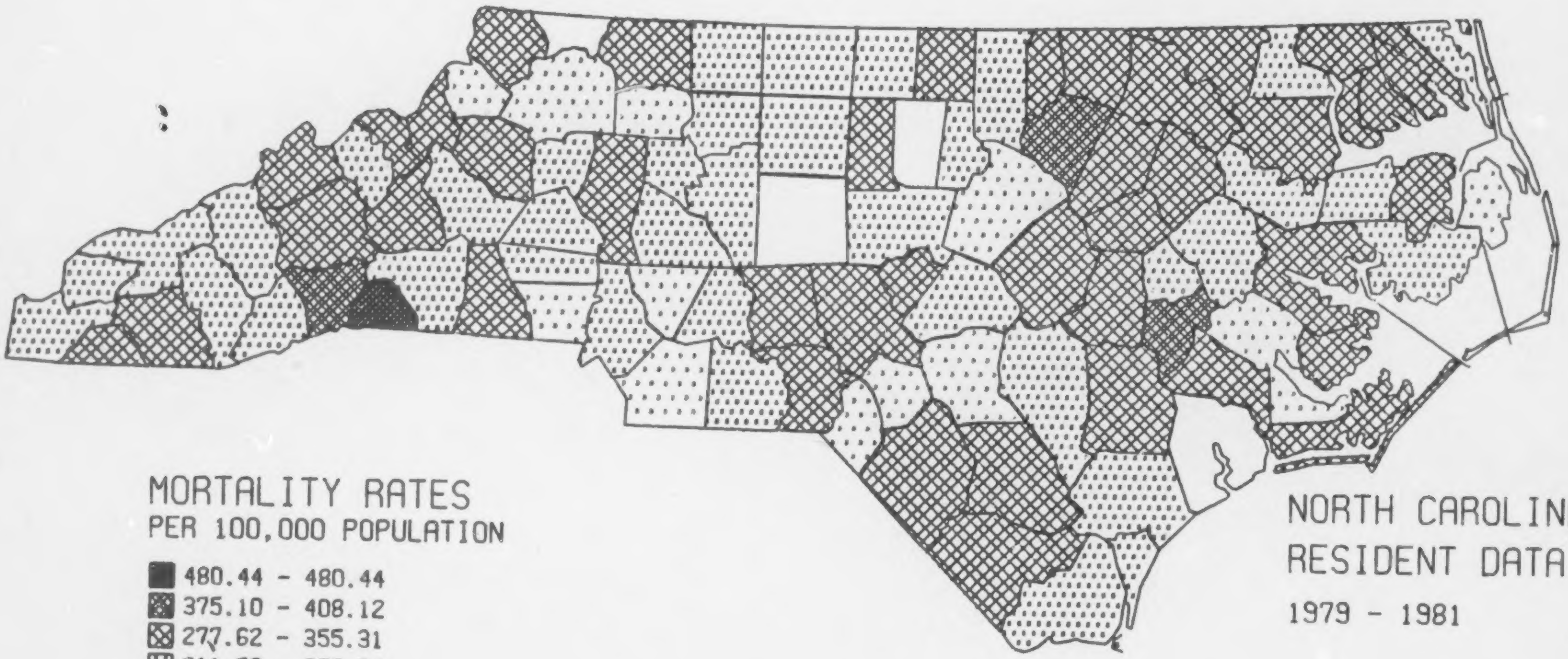

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
▩ 111.78 - 135.19
▩ 92.31 - 103.33
⊠ 60.00 - 85.08
▨ 48.08 - 58.21
▫ 29.48 - 44.46
☐ 17.31 - 19.96
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 29.B

CONDITIONS MENTIONED - ATHEROSCLEROSIS



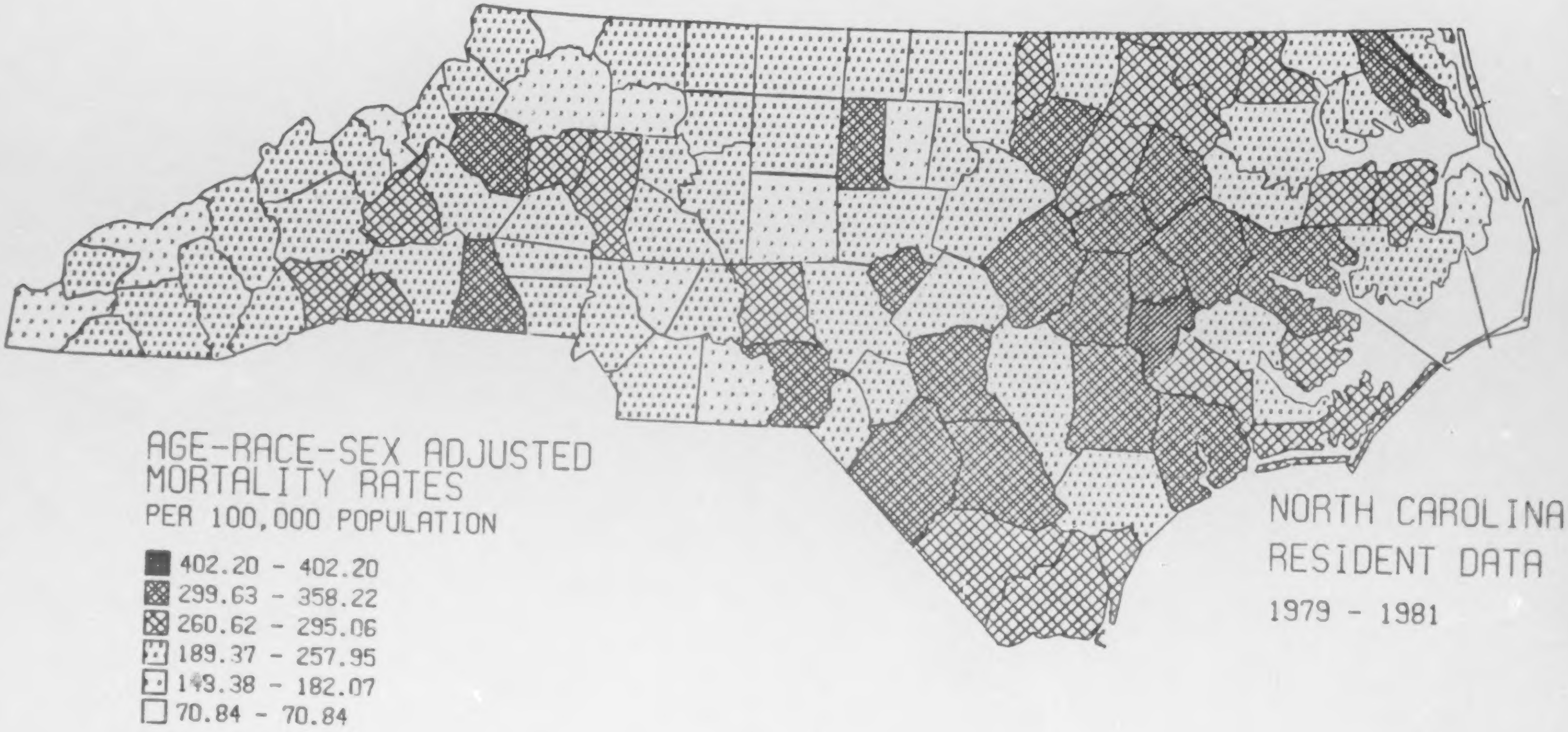
MORTALITY RATES
PER 100,000 POPULATION

- ■ 480.44 - 480.44
- ▩ 375.10 - 408.12
- ▨ 277.62 - 355.31
- ▦ 211.78 - 276.34
- ⊡ 150.43 - 196.68
- ☐ 116.56 - 134.60

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 30.A

CONDITIONS MENTIONED - ATHEROSCLEROSIS


AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
■ 402.20 - 402.20
▩ 299.63 - 358.22
▨ 260.62 - 295.06
⁙ 189.37 - 257.95
⁚ 143.38 - 182.07
☐ 70.84 - 70.84

NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 30.B

CONDITIONS MENTIONED - DIABETES

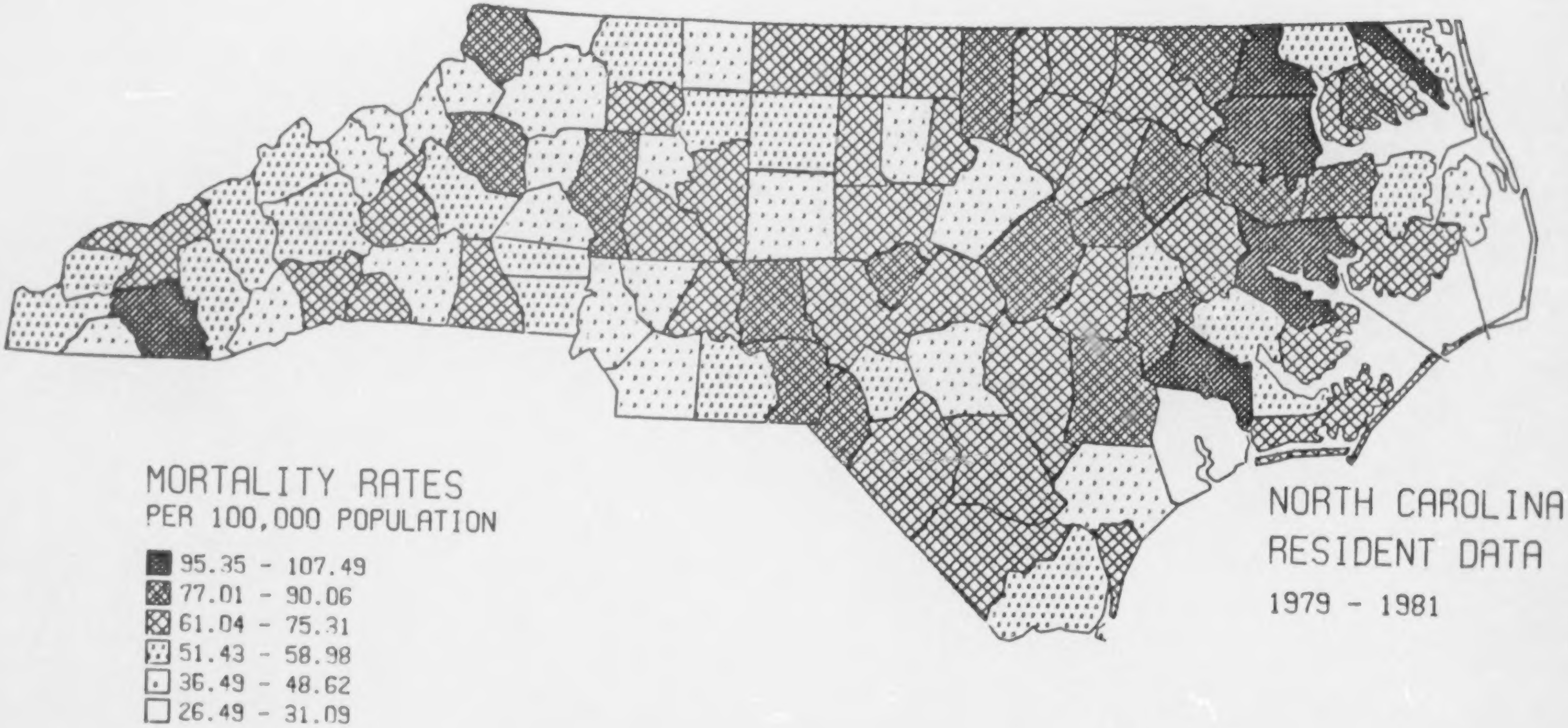

MORTALITY RATES
PER 100,000 POPULATION
95.35 - 107.49
77.01 - 90.06
61.04 - 75.31
51.43 - 58.98
36.49 - 48.62
26.49 - 31.09
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 31.A

CONDITIONS MENTIONED - DIABETES

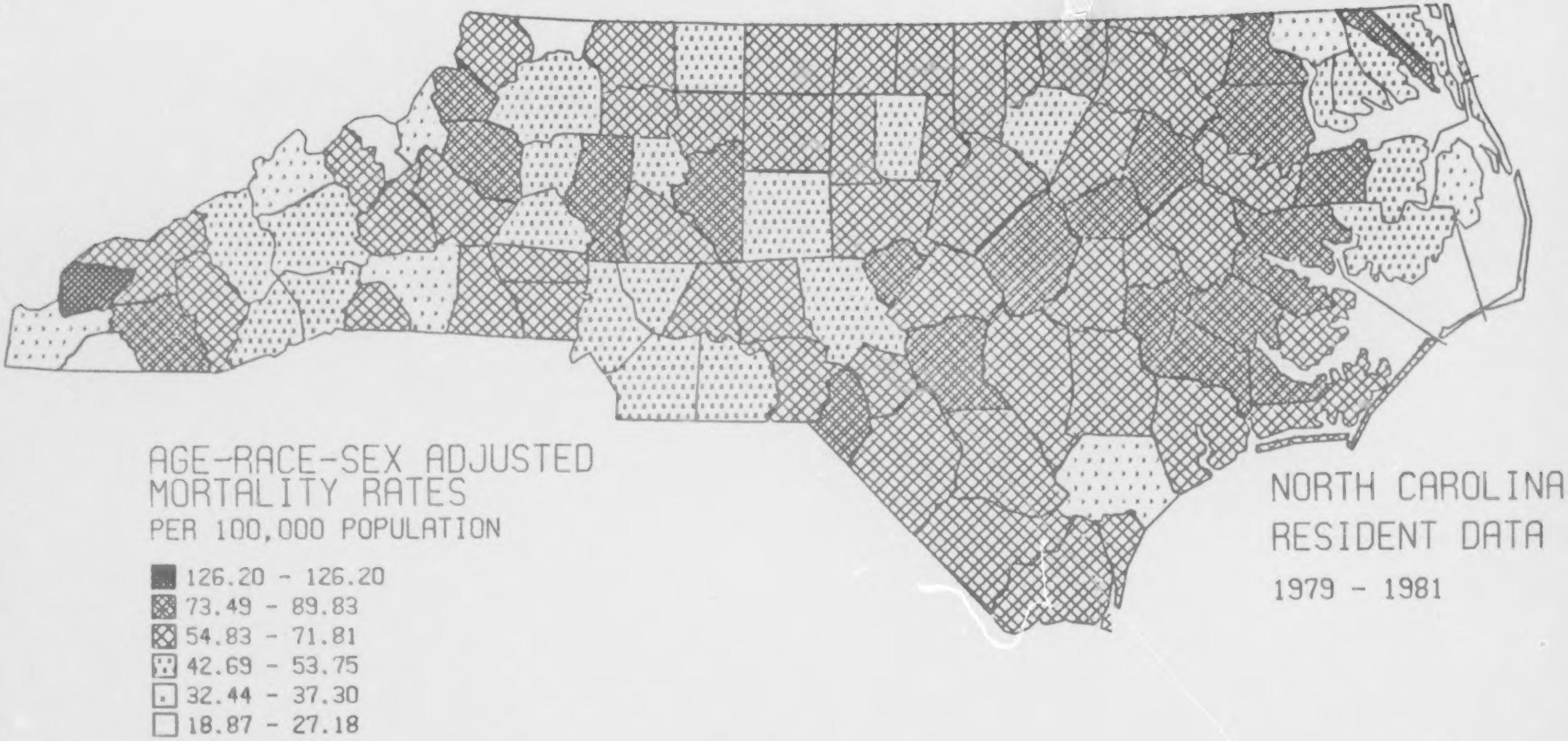

AGE-RACE-SEX ADJUSTED
MORTALITY RATES
PER 100,000 POPULATION
■ 126.20 - 126.20
▩ 73.49 - 89.83
▦ 54.83 - 71.81
⁙ 42.69 - 53.75
⊡ 32.44 - 37.30
□ 18.87 - 27.18
NORTH CAROLINA
RESIDENT DATA
1979 - 1981

FIGURE 31.B

REFERENCE FOR SECTION X

1. World Health Organization. *International Classification of Diseases: Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death Volumes I and II.* Geneva, Switzerland, 1978.